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Actions, attitudes and attributes: developing facilitation skills for problem-based learning

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Actions, Attitudes and Attributes: Developing Facilitation Skills for
Problem-based Learning

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**A thesis submitted in partial fulfilment
of the University's requirements
for the Degree of Doctor of Philosophy**

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Coventry University
in collaboration with
the School of Nursing and Midwifery
University of Dundee

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CONTENTS

Acknowledgements

ii

Abstract

vii

CHAPTER ONE: Introduction

1

Education, Education, Education

Introduction

2

Background

2

Nursing in Higher Education

4

Problem-based Learning to the rescue?

10

Problem-based Learning in Nursing

14

Constraints in Implementing PBL

16

Learning to Teach or Teaching to learn?

18

Conclusion

24

CHAPTER TWO: Literature Review

26

Not Performers or Stars

Introduction

27

The PBL Literature: An Overview

27

Perspectives on Facilitation

33

Research into PBL Facilitation

36

Rating Scales

40

Dimensions of PBL Facilitation

44

Facilitation, Group Dynamics and Gender

46

Developing PBL Facilitators

51

The Lived Experience of PBL

53

Conclusion

54

CHAPTER THREE: Context

57

The Sense of the Setting

Introduction

58

National Context

58

Local Context

62

Programme Organisation

67

Programme Structure

69

CHAPTER FOUR: Methodology	72
<i>The Devil's in the Detail</i>	
Introduction	73
Methodological Stance	73
My Identity within the Research	78
Access	78
Consent	80
Ethical Issues	81
Bias	81
Timescale	83
Validity	84
Reflexivity	86
Field Notes	88
Data Collection	89
Data Analysis	102
Status of the Data	106
Conclusion	109
 CHAPTER FIVE: Analysing Interpretively	 110
<i>Something Else is Alive</i>	
Introduction	111
Analysing Interpretively	111
Gordon	113
Food for Thought	114
Introduction to Session	116
Identification of Learning Issues	118
Closure	121
Transition in Approach	122
Conclusion	126
 CHAPTER SIX: Findings Overview	 127
<i>All the Business of Life</i>	
Introduction	128
Approaches to Facilitation	129
Elements within the Approaches	131
Content Elicitors	131
Process Interventions	136
Engagement	137
Narrative	140
Frame Factors	140
Evaluation	141
Developing an Approach to Facilitation	142
Toxic Facilitation	148
Conclusion	150

CHAPTER SEVEN: Findings (1)	152
<i>Directive conventionalist</i>	
Introduction	153
Characteristics of the Approach	153
The Approach in Action	156
Time Wasting?	165
Cue Consciousness	167
The Effect on Students	169
Conclusion	176
 CHAPTER EIGHT: Findings (2)	 177
<i>Liberating Support</i>	
Introduction	178
Characteristics of the Approach	178
The Approach in Action	180
The Approach Mis-Applied	194
Evaluation	197
The Effect on Students	198
Conclusion	200
 CHAPTER NINE: Findings (3)	 201
<i>Nurturing Socialiser</i>	
Introduction	202
Characteristics of the Approach	202
The Approach in Action	204
Supporting and Valuing Students	210
Instilling Values and Beliefs about Nursing	215
Co-dependency	216
The Effect of Students	217
Conclusion	225
 CHAPTER TEN: Findings (4)	 227
<i>Pragmatic Enabler</i>	
Introduction	228
Characteristics of the Approach	228
Developing the Approach	231
The Approach in Action	247
The Effect on Students	252
Influences on the Approach	256
Conclusion	258

CHAPTER ELEVEN: Discussion	259
<i>Fundamental and Terribly Difficult</i>	
Introduction	260
Facilitation as Technique or Teaching?	261
Espoused Theories and Theories-in-Use	265
Dissonance	271
Dialogue	274
Communicative Space	278
Student - Facilitator Interaction	280
Students and the Redistribution of Power	282
Limitations of the Study	286
Recommendations for Future Research	286
Recommendations from Study	288
Recommendations for	
Facilitation in Practice	288
Recommendations for Staff Development	291
Conclusion	292
<i>References</i>	294
<i>Bibliography</i>	309
<i>Appendices</i>	313

ABSTRACT

Problem-based learning (PBL) is being adopted increasingly as a learning and teaching strategy within the United Kingdom. Although facilitation is recognised as being central to PBL, much of the current literature on facilitation in PBL is conflicting. This study explored the espoused and actual conceptions of PBL adopted by facilitators on a newly-developed pre-registration nursing diploma programme that employed PBL. To explore the lived experience of the PBL curriculum, a constructivist interpretist qualitative research design was adopted. For facilitation in PBL to be effective in promoting independent learning and developing critical thinking, teachers were required to sustain the newly espoused pedagogy and to adapt their actions to match. All participants possessed facilitation skills before the start of the study, however expertise in PBL facilitation took time and practice to acquire as existing skills had to be applied in new ways. Findings identified four broad approaches to facilitation: directive conventionalist, liberating supporter, nurturing socialiser and pragmatic enabler. Over time, most facilitators converged from a directive conventionalist approach towards that of a pragmatic enabler. The transitions were influenced by the need to resolve dissonance between espoused theories and theories-in-use; increased understanding of the dialogic nature of PBL; the use of communicative spaces to share and reflect on experience and an enhanced awareness of student diversity. While the findings relate specifically to PBL facilitation, they also contribute to the understanding of the types of teaching and learning strategies required by the large and increasingly diverse student body.

Chapter One: Introduction

EDUCATION, EDUCATION, EDUCATION

Tony Blair, October 1996

Introduction

This chapter presents the background to and the rationale for the research. The chapter explores the position of nurse education within the current context of higher education with particular emphasis on the need to engage a diverse student body in higher education. The argument of the thesis is that problem-based learning (PBL) is a strategy that has the potential to engage students of nursing in higher education. However, effective implementation of PBL requires nurse teachers to hold beliefs about teaching and the nature of learning that support the PBL philosophy. Nurse education has traditionally employed a teaching model based on the transmission of knowledge. Any shift away from this model towards a more facilitative one, where students were encouraged to identify their own learning needs would require a transition in the espoused concepts of nurse teachers. Problem-based learning is a relatively new strategy in nurse education. There has even been a suggestion that the strategy is not suited to nurses (Feletti, 1993). Additionally much of the research on PBL centres on student responses with only a few studies focusing on the role of the facilitator. The PBL facilitator role and the espoused concepts required for the role to be sustained therefore require further exploration.

Background

The research explored the lived experience of a group of nurse teachers who implemented a problem-based undergraduate programme after the transfer of nurse and midwife education into the higher education sector in 1996. Demographic and social

changes before 1996 had resulted in student cohorts who were diverse in terms of age, social background and previous educational experience. Ongoing political changes following the election of a New Labour government had brought increased concentration on the National Health Service (NHS) with an accompanying demand for more nurses. Simultaneously the nursing profession insisted that newly-qualified practitioners were 'fit for purpose' and prepared to meet the challenges of constantly changing health care provision. The combination of these pressures led the School of Nursing and Midwifery in the study to develop a problem-based pre-registration curriculum. Problem-based learning had the potential to produce qualified nurses with critical thinking skills, who would be prepared for lifelong learning and thus would be able to adapt to the changes in healthcare. Additionally PBL, through its emphasis on student-directed learning, could respond to the diverse needs of the increasingly varied student cohort.

As a learning and teaching strategy PBL, with its emphasis on student-centred learning, was radically different from the teacher-centred strategies previously operated within the School of Nursing and Midwifery. The successful transition of the role of the teacher from subject expert to facilitator was central to the success of PBL. The work of Argyris and Schön (1974) indicated that individuals' espoused theories do not always match their theories-in-use. Where theories-in-use prove ineffective in maintaining congruence with the governing variables of the espoused beliefs, the theories-in-use will be altered. Teachers' beliefs about teaching and student learning have a powerful influence on their response to any changes in curriculum. For the adoption of the problem-based curriculum

to achieve the desired benefits, the teachers would have to shift their existing pedagogical beliefs to correspond to those of the new philosophy. If this transition in beliefs did not take place, the teacher actions required to facilitate PBL would not be sustained. Teachers would continue to act as they had done in the previous curriculum.

The study was designed to explore the lived experience of nurse teachers as they developed their role as PBL facilitators. Increased insight and understanding of the PBL facilitator's role, how it develops and the shift in pedagogical beliefs required will contribute to the improvement of PBL as an effective learning and teaching strategy.

Nursing in Higher Education

The transition from National Health Service (NHS) to Higher Education was a time of upheaval for nurse and midwife teachers. The period was also one of uncertainty for higher education in general. In the final decades of the twentieth century, higher education became increasingly subject to the influences of globalisation, marketisation and vocationalisation bringing about a decline in opportunities for liberal education and a related increase in education of a vocational nature. The erosion of universities' traditional autonomy accompanied this trend as successive governments sought increasing control over their management in exchange for funding from public monies. The Dearing and Garrick Reports into Higher Education (1997) brought teaching quality to the forefront of the debate, recommending the setting up of training courses for university teachers. The purpose of higher education was called into question with

argument over the respective roles of research and teaching.

Higher education for an increased percentage of the population has been a central tenet of New Labour governments, the much-quoted 'Education, education, education' of the 1996 Labour Party Conference (Blair, 1996). Conversely, the abolition of the last vestiges of student grants and the introduction of tuition fees created difficulties in attracting those sectors of the population that the government wished to entice into degree programmes. Despite this failure, universities now have a larger and more diverse student population than at any time in the past. The creation of the former polytechnics into new universities in 1992 brought an increase not only in numbers of students but also in numbers of courses. Central funding for higher education did not keep pace with this growth, causing existing resources to be spread more thinly. The introduction of tuition fees in 1998 increased the consumerist nature of adult education. Students (and their parents) expect value for their money; good quality teaching being high on their list. Value for money also was demanded in return for public funding. Quality of teaching controversially became subject to periodic review through quality assurance and appraisal systems. The Quality Assurance Agency (QAA), set up to monitor teaching quality, in turn became subject to increasing criticism for inequity across subjects, poor management and the general creation of an inordinate amount of unnecessary paperwork. In the aftermath of the Dearing and Garrick reports a professional body for university teachers, the Institute for Learning and Teaching (ILT), was created amid much wrangling over its actual and intended purposes. The Learning and Teaching Support Network (LTSN) came into

being as part of the same initiative.

Nurse education became fully integrated with higher education in 1996. It thus arrived in higher education at a time of uncertainty and disillusionment. For nurse teachers who had hoped to escape the low morale within the NHS, it seemed as if nothing had changed. Many of the issues of concern to higher education, such as student recruitment and retention, periodic teaching review, disempowerment, poor pay and a demand for a pay review body had already been experienced by nurse educators, the pay review body in particular being regarded as ineffective. Nurse and midwife teachers, the new kids on the higher education block, regarded the proposed centrality of learning and teaching to university business with some cynicism. Learning and teaching had comprised the major part of the work in the former nursing colleges and was still the major source of income for all but a very few departments of nursing. All nurse and midwife teachers possessed a teaching qualification at a minimum of certificate level. The move to higher education had brought the realisation that learning and teaching, even if lucrative, were not valued. Many universities were reluctant to award nurse teachers comparable status with lecturers in other departments. The reason given for the discrimination was the lack of research activity among nurse teachers, a position interpreted by nurse teachers as indicative of the low value accorded by universities to teaching activity.

The New Labour administration was vocal in its expressed desire to widen access to post-school education. Universities responded by developing and aggressively marketing

courses intended to appeal to both students and prospective employers. Subjects that previously would not have been considered as suitable for academic study now attracted a substantial portion of the student body and provided a sizeable amount of university income. Science faculties, for example, have seen a dramatic change in the subjects offered. Computing science is now the second most popular choice of subject, after law, for candidates aspiring to a university place. Nurse education, the focus of this thesis, is a prime example of this shift in subjects studied. Many Departments of Nursing are larger in terms of student numbers and budget than traditional faculties such as Arts. Schemes such as summer schools to top-up A-levels / Scottish Highers to entry requirement level and the use of Accreditation of Prior (Experiential) Learning (AP(E)L) were introduced to provide alternatives to traditional entry requirements and thus provide places for students who would previously have been excluded.

The result has been larger student intakes that are much less homogenous than previously experienced, with students varying not only in social background and previous educational experience, but also in age and culture. Many more students were first generation at university, bringing with them aspirations and expectations which differed from those of students whose parents had been through the system. The proportion of students entering university directly from school began to decline. There were more students whose previous experience of formal education had been some years previously. These students often had family and hence financial commitments well beyond those of the 18-year old school leaver. The withdrawal of state financial support for students

created a situation where many students were in full-time education and simultaneously in part-time employment. Despite attempts to supplement income, debt is the reason most often given by students who drop out of courses. The diversity of students also encompassed a different motivation for undertaking higher education; not all students are at university for love of the subject. In nursing, for example, there is no choice. Anyone wishing to become a qualified nurse must attend university, a reality that fits ill with the long-standing image of a practice-based occupation. To ensure its own survival, higher education must seek to retain students, whose time and money are limited, on courses while refuting charges of 'dumbing down' degree programmes. For many students, higher education is very much a means to an end and not a goal of itself; pass the examinations and receive the award; learning is incidental. The challenge for teachers in such a climate is to motivate students with the desire to know more, for learning to be enjoyable and to be undertaken at more than a superficial level.

Nurse teachers had considerable experience of many of the challenges developing in the rest of the higher education sector. Nurse education has had to face diversity of student intake for over a decade. The 1990s brought a demographic decline in 18-year old school leavers. The aftermath of the feminist revolution opened other career prospects for many women who traditionally would have entered nursing. Widening of the entry gate with strategies such as access to nursing programmes and AP(E)L allowed nurse education to tap into a pool of non-traditional applicants, partially created by growing unemployment in other jobs. These recruits were older, often with family commitments. Many students

had not taken undertaken formal education for several years. The introduction of a fee-free programme and a non-means tested, non-repayable bursary was attractive. Numbers of international students also increased, in particular from former British Commonwealth African Countries and Southern Ireland. The typical cohort was no longer young, female and white. People were entering nursing for different reasons. The tradition of vocation (if such a thing really had existed) had been replaced by the opportunity of a career for life, a comparative rarity in the employment market. Changes to the organisation of the curriculum meant that, despite the reduction in student numbers, class sizes were larger with students spending a larger proportion of their programme in the classroom. Strategies had to be developed to deal with the increased diversity of student background and the extended amount of time spent in theory.

The challenges facing nurse education have reached other sectors in higher education. The increase in vocational courses within universities has added the demands of professional regulatory bodies to those of students and their parents. The pressure does not stop with offering courses to meet specific occupational obligations. The uncertainty of the economic climate has led to additional demands on post-school education. There is no longer an expectation that a job will be for life. Despite claims by successive Chancellors of the Exchequer that the 'boom and bust' cycles of the twentieth century will be avoided, changes in technology and consumer demand create rapid and often unpredictable changes in workforce requirements. Today's highly skilled components engineer becomes tomorrow's financial advisor. Even nursing, widely marketed in

Europe and the UK, as a career for life, is subject to the demands of changing roles. Blurring of professional boundaries leads today's staff nurse into the role of tomorrow's junior doctor or social worker. The government response to the unpredictable employment situation has been to demand multiskilling and the development of transferable skills as part of adult education courses, including those based in higher education. Given the pressure to attract and retain more students than ever before and to educate them, not only for the immediate postgraduate period but for life, higher education is currently challenged with providing learning opportunities that motivate, encourage and support students in achieving their full potential.

Problem-based Learning to the Rescue?

The recognition that students and courses were changing had stimulated interest in learning and teaching even before the government reports into higher education demanded training for all teachers in the further and higher education sectors and brought the ILT and the LTSN into being. Biggs (1999) contended that working with students whose motivation is different and who perhaps are less academically able presents challenges to teachers in higher education. Different teaching and learning activities are required to assist these students to attain similar levels of achievement to students who possess an intrinsic motivation to learn. Biggs recommended that the activities adopted should engage the student in learning and that teaching should be aligned, with learning outcomes and assessment methods matching the teaching and learning strategies adopted, strategies suggested by many in former years, (for example, Gibbs, 1981, 1992; Entwistle, 1988). He suggested that teaching and learning strategies should encourage a

'deep' approach to learning (Marton and Säljö, 1976), where students were active in the learning process and tried to make relationships between facts and details in order to understand a problem or principle, rather than a 'surface' approach where students' main concern was to reproduce separate facts. Biggs' principle that learning is presented as being relevant and that students are assisted to perceive the purpose and value of what is to be learned reflects other research into learning and teaching, for example Prosser and Trigwell (1999) recommended that teaching and learning activities engage student interest and encourage active learning in which the student is an equal participant in the learning process, rather than an a passive recipient of knowledge.

One strategy that meets the criteria of active and relevant learning is that of PBL. Problem-based learning has been used as a learning and teaching strategy since at least the early sixties. The origins of the philosophy are generally credited to McMaster University, Hamilton, Ontario, where dissatisfaction with the traditional system of teaching undergraduate medical curricula led to a search for a 'new' strategy. The result was problem-based learning, a strategy in which the curriculum was organised around problems rather than subjects. Graduates from problem-based courses, it was hoped, would be able to direct their own thinking and would possess critical thinking and analytical skills which would be used to provide effective, efficient, humane care. (Neufeld and Barrows, 1974; Neufeld *et al*, 1989). The concept of PBL evolved from years of research into the clinical reasoning skills employed by expert clinicians, finally published by Barrows and Tamblyn in 1980. Problem-based learning was not only more

effective in creating a body of knowledge than memory-based strategies, but working with problems helped to build the problem-solving skills required by doctors in clinical practice. Although the origins of PBL are credited to McMaster, the strategy drew on previous educational work including case-based learning developed at Case Western University in the 1960s. Much of the research on incorporating activity, such as the use of cases, into learning evolved from the work of Dewey (1938) who argued that knowledge is not fixed and static but is associated with finding out. Students should be allowed to pursue their own interests and satisfy their own curiosity. Problem-based learning is sometimes presented as a rigid strategy that adheres to either the guidelines as originally developed at McMaster or to the Seven Steps adaptation of the University of Limburg (Schmidt, 1983). However, Barrows (1986) argued that PBL can take a number of forms, a view supported by Boud (1985) who claimed that the type of PBL will vary according to the context and demands of the educational programme in which it is used.

By the 1980s PBL had spread in an almost evangelical movement across North and South America, to Australia, Africa and Northern Europe, moving from medical education into other disciplines such as engineering, agriculture and law (Boud and Feletti, 1997). This transmission and diversification of PBL brought about modifications to the original process as various institutions and professional groups adapted and altered the original strategy to meet their individual needs, leading one of the technique's founders to comment that the possible permutations and combinations of design variables in PBL were endless (Barrows, 1986). Problem-based learning in the UK increased during the

1980s, being used in courses as diverse as occupational therapy and architecture. The interest in PBL in the UK continued into the 1990s being particularly strong in the healthcare professions with several schools of medicine and nursing developing problem-based courses.

Many of the claims made for PBL make it an attractive philosophy. Promotion of learning within the practice context in which it will be required; the development of effective self-directed learning skills and increased motivation for learning are cited in support of PBL (Boud and Feletti, 1997). Problem-based learning also claimed to enhance the acquisition, retention and use of knowledge in addition to increasing its retrievability (Shin *et al*, 1993). The basis for many of these claims lies in the belief that PBL could encourage to adopt a deep approach to learning. Biggs (1988) identified four conditions that foster a deep approach to learning: motivational context, learner activity, interaction with others and a well-structured knowledge base. It has been argued that PBL has the potential to fulfil all of these (Patel *et al*, 1991). Furthermore, PBL was seen to produce an enjoyable experience for both students and teachers (Vernon, 1995).

Much of the literature on PBL is anecdotal, dealing with successful attempts at implementing PBL and relating to vocational courses (for example, Boud and Feletti, 1997). Problem-based learning however, has several drawbacks. It is highly intensive in terms of teachers, accommodation, library and other resources. Organisations that adopt PBL may find that there are some overall savings of teaching resource balanced by the

teacher-intensiveness of the PBL sessions against the amount of time spent by students in self-directed study. However, there is a risk for organisations that do not fully adopt the student empowerment philosophy, that PBL will add considerably to the teaching load as staff continue to cover material with teacher-centred strategies, such as lectures, in addition to facilitating the student groups. Problem-based learning also makes considerable demands on library resources, such as journals, books, computerised data bases, Internet access and the librarians themselves. Clinical staff and voluntary agencies may find they also are increasingly used as sources and in a climate of staff shortages become reluctant to spend time with students.

Problem-based Learning in Nursing

The introduction of PBL into UK nurse education began with undergraduate and post-registration programmes where the number of students was small. Interest in PBL as a suitable strategy for nurse education increased throughout the 1990s, with September 1997 seeing three UK institutions introducing problem-based pre-registration diploma programmes. The desire for a different strategy in the education of British nurses, like the original McMaster Experiment, lay in dissatisfaction with the existing programmes. Dissatisfaction not only among nurse teachers, but also among practitioners who felt that the diploma programmes introduced in 1992, the so-called Project 2000 initiative, had failed to produce the expected 'knowledgeable doers' promised by the United Kingdom Central Council for Nursing, Midwifery and Health Visiting (UKCC, 1986). Increased teaching of subjects such as psychology, sociology and health policies in the Project 2000 programmes led to overcrowding in the curriculum with a subsequent shift to surface

learning by students (Glen, 1995). This, coupled with the decline in opportunities for clinical practice resulting from changes in the NHS, brought allegations that curricula lacked sufficient integration of theory with practice in the clinical setting (Hislop *et al*, 1996). These claims were followed by a series of reports that raised concerns over the ability of Project 2000 to equip nurses for practice (Walsh, 1997; Scott, 1997; Runciman *et al*, 1998). The problems of theory overload, dwindling practice opportunities and lack of theory and practice linkage were compounded by Government initiatives, such as those outlined in The Learning Age (1998), to promote lifelong learning and transferable skills. As views on how best to prepare nurses tend to reflect the prevailing socio-political climate as well as professional interests, these elements were added to the mix. The Dearing and Garrick reports (1997) emphasised the use of flexible, self-directed approaches to learning in preference to the traditional teacher-centred, subject-based methods. This emphasis was echoed by the Report of the UKCC Commission for Nursing and Midwifery Education (1999) which responded to the issues outlined above and to many others, including attrition rates, entry requirements and relationships with Higher Education Institutions (HEIs) and services providers, with a series of recommendations whose main focus was Fitness for Practice. The use of PBL was recommended as a strategy that would foster interpersonal and practice skills and thus make the best use of practice placements. Learning was again highlighted as a lifelong activity.

Although the employment situation for nurses began to improve in the late 1990s, the nursing workplace continued to be subject to constant change, thus continuing to require

flexibility in its employees. The National Board for Nursing, Midwifery and Health Visiting for Scotland (NBS) expected nursing students to develop transferable skills through collaborative and peer activities, participatory, interactive learning and interdisciplinary learning situations in which they were not only expected to learn, but also to enjoy the learning experience enough to continue learning through life (Hickie, 1998). The move into higher education brought pressures to increase the academic level of the initial preparation programme to that of degree, while practitioners insisted that courses must not become increasingly academic and create practitioners who are not able cope with, in the words of Schön, 'the complexity, uncertainty, instability, uniqueness and value conflicts perceived as central to the world of professional practice' (Schön, 1987:16). Given the demands on nurse education at a time when educationalists felt scapegoated for nursing's wider problems and burdened by the demands of academe, it was unsurprising that PBL, with its claims of active, contextualised learning which promotes critical thinking and problem-solving, appeared an attractive strategy for nurse education.

Considerations in Implementing PBL

While PBL offered several apparent benefits, which seem to meet the demands on nurse education to produce a practitioner fit for 21st century healthcare, it also carries several drawbacks. Feletti (1993) argued that the hypothetical-deductive nature of problem-based learning was not particularly suited to nurses or their education. He claimed that nursing students overall tend to be less academically able than medical students are, and thus may be less confident in discussion and less competent in self-directed learning. He suggested

that this may be linked to the number of women in nursing, indicating that women's knowledge and preferred learning styles were less suited to PBL. As very few research studies address the influence of gender in PBL and the research into women's ways of learning is itself inconclusive (Hofer and Pintrich, 1997), there appears to be little basis for this statement. Feletti also claimed that the 'messy problems' encountered in nursing do not lend themselves to solution through PBL. This statement is countered by work by Sadlo (1995) which suggested that PBL is useful in learning about these 'messy problems' as it allows for integration of material and discussion around real situations which are seldom clear cut. Feletti's third argument against PBL in nurse education stated that as there are considerably more nursing students than medical students, PBL may not be feasible because of staff resource implications. This point is arguable as Schools of Nursing currently tend to have more full-time members of staff than Medical Schools who traditionally work with large numbers of honorary lecturers. Schools of Nursing may, in fact, be better placed to operate problem-based curricula.

Despite the reservations of Feletti about the unsuitability of PBL as a strategy for nurse education, the biggest potential hindrance to adopting PBL, not only in nurse education, but in other disciplines, is the fear that introducing PBL will result in teachers losing both their teaching and subject expertise and thus their status as teachers. The basis for this fear lies in teachers' pedagogical beliefs. Successful facilitation of PBL depends on teachers possessing a concept of learning, and hence teaching, that is student empowering, that believes in the students' ability to learn and that perceives knowledge

as a changing and shared product. The concept does not hold that teachers own the knowledge that they transmit to students or that there is a collection of 'right' answers to be learned and reproduced. Unless teachers espouse and apply such concepts, facilitation will not be effective in producing the benefits claimed for PBL.

Rogers and Freiberg (1994) pointed out that being a facilitator requires a special perspective on life. Facilitators are people who place learners' needs and interests first, an attribute recognised and appreciated by most students. PBL is claimed as being enjoyable for both students and teachers. A view supported by Albanese and Mitchell (1993) who commented that PBL appeared to be more successful when delivered by a small group of enthusiastic lecturers rather than by everyone in the Faculty. The enthusiasm in the Albanese and Mitchell study was for PBL. Elton (2000) suggested that in a problem-based learning curriculum the enthusiasm for the subject should come from the students' learning rather than the teachers' teaching. If students are to become enthused with the subject, teachers need to curb their enthusiasm and allow students to make their own discoveries.

Learning to teach or teaching to learn?

There are, however, a number of debates about the interrelationship between facilitation and teaching. While facilitation could be classed as a teaching skill, it has attributes that distinguish it from most other teaching styles. Brockbank and McGill (1998:65) wrote of the 'decision to alter teaching practice towards facilitation' in the context of reflective

practice. They noted that without a matching shift in espoused concept, teachers continued to act as they had done previously, directing students towards what had to be learned and how they should learn it. Not only the skills, but also the attitudes required for facilitation, therefore, must differ in some way from those skills required for teacher-centred activities like lectures and tutorials. Margetson (1997), however, suggested that facilitation is 'simply good teaching'. Biggs agreed, stating that it is not a matter of acquiring 'new teaching techniques, as much as tapping into the large, research-derived knowledge base on teaching and learning that already exists' (Biggs, 1999:1). This assumes that all who teach possess not only this large knowledge base, but also the skills to enable the knowledge to be applied to the activity of teaching. Teachers may possess extensive subject knowledge but lack the research base for teaching that allows it to be transmitted to students in a way that encourages understanding. Teaching requires practice. There are many 'good teachers', well informed, entertaining, meticulously prepared, enthusiastic and committed to their students, who believe that unless the students have been given the required information in a face-to-face situation learning cannot occur. Teaching reflects the espoused concepts of the teacher. For these good teachers to develop facilitation skills, a different set of pedagogical values is required. Bleakley (2001) argued that a model of lifelong learning that presents student-directed learning as a monologue denies the value of dialogue in teaching and learning. The dialogic model, he contended, is not an authority-laden transmission approach but one where teaching is seen as a freely-given gift expressing a commitment to life-long teaching. Such an approach to the facilitation of learning requires a fundamental

reconsideration of teaching. Teaching, he claimed, is not simply a functional skill or collection of techniques, but rather a form of aesthetic and ethical practice, which is continually and reflexively tested.

Learning and teaching are complex areas. Brockbank and McGill (1998) and Haggis (2001) stated that despite increasing amounts of research into teaching and student learning, particularly in relation to newer forms of promoting learning such as PBL, there is still a 'black box' of processes to be explored. Much of the existing research talks of teaching for adult learning as if it were a single predefined entity. Research has tended to produce models in which learning is usually presented in stages, as being in some way progressive, ignoring accounts of situations where a complex situation may be quickly understood when an apparently simpler concept takes longer (for example Perry, 1970; Kolb, 1984; Jarvis, 1987). While the production of models of learning may be an attempt to separate out the multiple individual strands, they are often simple and do not reflect the individualistic nature of learning. Little work has been undertaken to suggest how the various models interlink with each other. Terminology is poorly defined with designations such as knowledge, belief and learning often used as having the same meanings. (Hofer and Pintrich, 1997). Additionally much of the research has been undertaken on traditional student cohorts (white, middle-class, school leavers). Few studies have considered learning patterns of those outside institutionalised education, but those which have, raised interesting issues (for example, Weil, 1986; Taylor, 1997). If the nature of the student cohort is altering to include students from other backgrounds,

the results from such studies may not be applicable. Haggis (2001) claimed that learning is unique and unpredictable. If learning experiences are individual, then teaching practice is also unique, a complex mix of ideas, values and experience that influence actions (Usher and Bryant, 1987; Eraut, 1994), particularly in the development of skills and techniques required to deal with situations that challenge existing concepts of teaching. In the diverse and challenging nature of higher education, the development of such skills must reflect this individuality of both teacher and learner.

The beliefs and presuppositions of teachers about teaching and learning are powerful and for the most part remain unarticulated. It cannot be assumed that the beliefs will reflect researched models of teaching and learning as beliefs are influenced by personal experiences of both learning and teaching. Even when concepts of teaching are made explicit they may not fully reflect the beliefs actually held. Teachers may believe that their implicit concepts may be the same as those of everyone else in the institution. Thus very subtle forces can interfere with effective curricular change (Mifflin *et al*, 2000). Egan (1978) stated that there must be a recognition that changes in the curriculum will be affected by teachers' world view, including their perceptions of students. It cannot be assumed that the introduction of a problem-based curriculum will cause staff pedagogies to become aligned with each other.

Existing teaching styles in nursing programmes tended to follow a transmission of knowledge model. The teachers as experts, passing on their knowledge to the students

with large group lectures being the most commonly used teaching strategy. Some teaching was undertaken in 'small groups', small groups consisting of between 10 and 40 students. The small group work was highly directive and teacher-focused. Even clinical skills sessions where students were expected to practice nursing skills in a safe setting centred on the teacher as expert clinician. While some teachers expressed dissatisfaction with the lack of autonomy given to students, many teaching staff held the view that students had to be told what to learn. Unless the students were told what to learn, 'they would not learn what they ought to learn'. Although there was some recognition that the presence of lecturer and students in the same room did not ensure that learning had taken place, possession of a set of lecture notes with accompanying acetates, 'proved' that the material had been taught, thus providing a defence against any allegations to the contrary.

A PBL curriculum for nursing based on patient-centred problems, where learning needs were student-identified and material was learned in an integrated fashion rather than by subject, was radically different from existing nursing programmes. Much of the content taught in pre-registration nursing curricula is borrowed from other disciplines and applied to nursing. The body of knowledge that can be classed as unique to nursing is relatively small and has a short history, mostly having been accrued over the past fifty years. The application of other disciplines to nursing and the siting of pre-1996 programmes in monotechnic colleges led nurse teachers to develop 'specialisms' within their teaching. Some of the specialisms related to clinical areas such as intensive care, community nursing or to body systems, for example renal or cardiovascular nursing. Other

specialisms related to the applied disciplines, in particular biological sciences, psychology, sociology and health education. In 1992 the UKCC introduced a requirement for all nurse teachers to hold at least a first degree in addition to a teaching qualification. At the beginning of the study in 1996 only 7% of the teaching staff had entered nursing by an undergraduate route rather than a pre-registration certificate route. Following the UKCC legislation, many nurse teachers opted to undertake degrees related to the applied discipline rather than to nursing. The range of first degrees varied from human biology and sociology to accountancy and English language. Masters' degree subjects were even more diverse. Education was a popular subject, but ethics, law and history were also represented. The School of Nursing and Midwifery, therefore, taught a wide range of subjects within the confines of its discipline, with individual teachers prizing their subject expertise. Any change in curriculum design that moved towards integration of subject areas, was likely to require major transitions, not only in the logistical aspects of the curriculum, but in the ways teachers defined themselves and their roles.

Nursing is a practice-based profession whose scope is still evolving. In order to prepare nurses to take a key role in caring for people in the new millennium, nurse education must develop innovative and creative initiatives. To achieve this, educational principles and procedures should foster critical thinking and problem-solving and develop the use of evidence-based practice. The adoption of PBL by nurse education would appear to promote these skills through the presentation of material in context which demands real solutions supported by research-based evidence. For these reasons the School of Nursing

and Midwifery where this study was undertaken decided to introduce a pre-registration curriculum which was problem-based.

Effective implementation of PBL would require a transition of the teaching ethos of the School from subject-based, transmission of knowledge teaching to problem-based, student-identified learning. Research was required to provide insight into the lived experience of teachers during the transition.

The aims of the study were

1. To explore the espoused and actual conceptions of facilitation adopted by nurse tutors on a pre-registration nursing programme that utilised problem-based learning.
2. To utilise findings from the research to improve the effectiveness of PBL as a learning and teaching strategy

With the specific objectives of

1. Examining the similarities and differences between interview data and the actual facilitation of PBL seminars
2. Exploring the expectations and experience of being a PBL facilitator

Conclusion

Nurse education in the present climate must meet the demands of the public for safe practitioners and of the profession for staff who are fit for purpose, while dealing with the challenges currently facing higher education. Nursing is not perceived as an academic discipline, with its students coming from a diverse range of social and educational backgrounds. There is, therefore, a need for nurse education to motivate its students to

engage in higher education in order to acquire critical thinking and lifelong learning skills in preparation for professional practice. Problem-based learning appears to have the potential to develop the skills required by a health service in constant state of change, while motivating students to learn.

However, introducing PBL into the pre-registration nursing diploma programmes presented several challenges. Teachers were required to develop a different set of techniques in order to facilitate student learning, yet, facilitation called for more than a collection of new skills. For facilitation to be effective required the espousing of beliefs that supported the student-centred nature of the philosophy. The literature on facilitation in PBL is conflicting and confusing, providing little insight into the lived experience of the PBL facilitator. More exploration of the ways in which the facilitator role is developed and the transitions made by teachers with respect to both actions and espoused concepts is required. The research followed a group of experienced teachers as they implemented PBL. Exploration of the experience of these teachers will assist in increasing understanding of the complex nature of the processes involved in seeking to develop a different approach to the promotion of learning.

Chapter Two: Literature Review

NOT PERFORMERS OR STARS

Rogers and Freiberg 1994

Introduction

This chapter reviews the literature pertinent to the research. It addresses three main categories: the overall use of problem-based learning; the role of the facilitator in small group work and the role of the facilitator in PBL. The literature reporting on research undertaken with respect to PBL in nurse education is comparatively small; therefore a wider perspective has been taken. While the main focus of the review is that of the role of the facilitator in problem-based learning, the other research and literature overlaps with this. The review will encompass a brief overview of the relevant PBL literature, a review of the literature on facilitation in general and finally a review of literature relating to facilitation in PBL. ‘Facilitator’ was the preferred term adopted by the School of Nursing in this study. It is widely used by other institutions. Therefore, it is used throughout the thesis as the generic term to refer to teachers working with students in PBL seminars. However, as much of the medical PBL literature uses ‘tutors’ and ‘tutorials’, despite at least one view (Koschmann *et al*, 1997) that the terms are inappropriate, these terms are used interchangeably with ‘facilitator’ and ‘seminar’ in the literature review.

The PBL Literature: An Overview

There is a plethora of literature on problem-based learning dating back to the early 1970s. Most of the early literature, and indeed much of the recent literature, relates to PBL in undergraduate medical education, with institutions in the United States of America, The Netherlands and Australia contributing the major part. The past decade, however, has seen an increase in material from other countries and disciplines. In the United Kingdom in the past five years there has been a surge in the implementation of PBL however the

accompanying increase in published reports of research into PBL has been small, particularly with respect to PBL in nurse education. While there is some literature on the role of the facilitator in PBL, much of it focuses on what facilitator 'should' do, rather than what facilitators actually do. This lack of published studies into what actually occurs inside the PBL seminars, means that little is known about staff and students' lived experience of problem-based curricula.

The literature on PBL is extensive and growing. However much of the material, in particular that from the 1970s and early 1980s, is descriptive rather than research-based and is devoted almost entirely to undergraduate medical education. More rigorous accounts of PBL started to appear in the 1990s with an increase in material from disciplines other than medicine. Despite the interest in PBL and other forms of learning that attempt to promote independence in the student with respect to learning, there is relatively little literature that focuses on facilitation and the role of the facilitator. Most of the published material on independent learning is related to the student experience. The facilitator's role is regarded as non-central and taken for granted, particularly with respect to independent learning for the professions. Apart from studies undertaken at the University of Maastricht (previously the University of Limburg), very little research has been carried out into facilitation in PBL. Most of the Dutch work is quantitative and provides minimal insight into the nature of PBL facilitation.

One of the most cited articles on PBL is the review of PBL literature undertaken by Albanese and Mitchell (1993). This paper provided an overview of the English-language

literature on PBL in medical education published between 1972 and 1992. The review used quantitative techniques to compare performance of PBL course graduates with traditional course graduates across a range of outcomes such as history taking and success in achieving first choice of internship. The comparison was necessarily limited to those aspects of PBL that medical teachers had chosen to explore and write about. The articles reviewed therefore reflected the values and attitudes of existing medical curricula. Many of these, such as acquisition of basic science knowledge and success in unseen, time-limited examinations were attributes that PBL was not designed to foster in students. Few reports on facilitator behaviours were included. Most of these latter reports concentrated on post-tutorial ratings of facilitator performance by students or tutors themselves and added little to the understanding of facilitation in PBL. Albanese and Mitchell concluded that PBL was more nurturing and enjoyable than conventional instruction, but little detail was provided on the nature of the nurturing. Students on PBL programmes performed as well and sometimes better, on faculty evaluations and clinical examinations than students on conventional programmes, although some gaps were noted in cognitive knowledge. Nurses rated PBL students lower than traditional course students on clinical performance. The review raised concerns over the costs and resource intensiveness of PBL and recommended that consideration was required about the extent to which teachers should direct students during medical training. This latter aspect received least attention in the research in the following years. Vernon and Blake (1993)'s meta-analysis of evaluative research into PBL over the same period covers much of the same literature. Their review also employed a quantitative methodology utilising effect size and supplementary vote-count analysis of data from 19 institutions. Again, all of

these institutions were medical schools. Vernon and Blake (1993:561) concluded that students were 'unlikely to suffer detrimental consequences from exposure to PBL programs' and that there were some educational benefits to be gained from the approach. Like the Albanese and Mitchell study published in the same year, the results appeared to be an attempt to justify PBL using a statistical analysis of a limited range of outcomes; an approach which ignored the complexities of learning.

An updated review of PBL in medical education, similar to those of Albanese and Mitchell (1993) and Vernon and Blake (1993), was published in 2000. Colliver (2000) claimed that little had changed in the intervening years: on measures of knowledge PBL students performed little better or little worse than students on traditionally taught programmes. There were some gains in clinical reasoning ability and student satisfaction. Colliver concluded that the benefits were too small to justify the cost of PBL. The review was confined to PBL in medical education with little acknowledgement of the increased use of PBL in other disciplines and the debate on the types and applications of PBL. Colliver blamed the lack of large-scale benefits from PBL programmes on its weak theoretical concepts and the contrived, manipulated and *ad hoc* research in the early development of the strategy. These charges were strenuously contested by Norman and Schmidt (2000), who asserted that the theoretical concepts underpinning PBL were strong and that further theory-based research would contribute to increased understanding of learning as it occurs in PBL. They pointed out that research in educational settings cannot be subject to the randomised trials suggested by Colliver, as there are simply too many

variables to be controlled, an aspect that they had chosen to overlook seven years previously.

Albanese, one of the original reviewers, also challenged Colliver's interpretation (Albanese, 2000). Colliver asserted that to be considered effective, PBL should show effect sizes of between 0.8-1.0 for individual change. Albanese conducted a meta-analysis of studies that used methods other than PBL and found that the average effect size was 0.5. He claimed that to demand changes higher than changes from PBL than from other methods was unreasonable. His argument focused on the selective use of statistics and did not acknowledge the complexity of PBL as a learning strategy. Unlike Norman and Schmidt (2000), Albanese conceded that the contextualised learning theory base originally claimed for PBL may be weak. He argued that this does not mean that other stronger theoretical bases do not apply. Theory bases, such as information processing and co-operative learning, were stronger and could provide justification for the 'active' learning element in PBL. He also suggested that PBL satisfied Control Theory (Glasser, 1986) as it helped to meet individual needs of freedom, power, love / belonging, fun and survival; attributes that may be valuable in motivating students in the current educational climate. Albanese (2000) also acknowledged that PBL had transferred to other disciplines and suggested that research from these areas will add to the body of information. However, neither Albanese nor Norman and Schmidt acknowledged the complexities of human learning or that, given the varieties of PBL, it is likely that different theories will apply in different contexts. More research is needed to identify the 'active' ingredients of PBL that promote effective learning.

These reviews (Albanese and Mitchell, 1993; Vernon and Blake, 1993, Colliver, 2000) all highlighted the difficulty of deciding what exactly comprised PBL. The complexity of PBL had led one of its founders, Howard Barrows, to produce a taxonomy of PBL types, proffering that PBL does not refer to a single educational method (Barrows, 1986). His taxonomy linked the degree to which cases are presented to the students as ‘problems’ with the amount of direction provided by the tutor to provide six levels of PBL moving from the use of cases in lectures (teacher-directed, complete case) to ‘closed-loop, problem-based’ where the case is presented completely as a problem and the control of learning lies entirely with the students. Savin-Baden (2000) in a qualitative study some fifteen years later in a non-medical UK context, identified five models of PBL ranging from PBL for epistemological competence to PBL for critical contestability. The models were not taxonomic but were used by facilitators to meet the needs of the programme. It was possible for several models to be operating in the same programme at the same time according to the programme outcomes and the facilitator’s perception of PBL. While the creation of taxonomies or models assists understanding of the processes involved in PBL, they require the reader to have at least some understanding of the operational issues associated with problem-based courses. Identification with the stages or parts of the frameworks therefore is more likely to be done retrospectively, than as a deliberate part of curriculum planning.

Despite cautions about the limited benefits and the implementation costs of PBL, it was recommended as a suitable method for educating Health Care Professionals by WHO (1993) and the World Bank (1993) because of its contextualisation of content and ability

to adapt curricula to meet local needs. The General Medical Council (1993) recommended its use in undergraduate medical programmes in the UK as did the UKCC (1999) for nursing programmes.

Perspectives on Facilitation

Much of the work on facilitation has its roots in counselling and, in particular, the work of Rogers (1969, 1983, 1994). Although a considerable amount has been documented about the role of the facilitator in small groups (Heron 1989, 1999; Eden and Radford, 1990; Jaques, 1992; Phillips and Phillips, 1993), there is little research *per se* into the role. Much of the research content is drawn from the author's own experience of facilitating groups. While individual insights can be valuable and contribute to the understanding of the nature of facilitation, they often lack the rigour required of research. The bulk of the literature on the role of the facilitator in group-based learning, centres upon a personal relationship of respect and mutual trust between the learner and the facilitator. Rogers (1983) suggested that the qualities of a good facilitator include realness and genuineness: accepting and prizing the learner and having the ability to offer empathetic understanding. With Freiberg, Rogers (1994) observed that being a facilitator of learning requires a special perspective on life; facilitators are not performers or stars; they are people who put students' needs and interests first. Jaques (1992) argued that the role of the facilitator in learning groups is of one who has shared responsibility with the group for learning and that students and facilitator should accept one another for who they are rather than what they 'should' be.

Heron (1989, 1999) explored facilitation in detail, asserting that the facilitator's role is central to students learning to work independently. Heron presented facilitation as having three functions: to assist students in learning content, to facilitate students in how to learn and to assess student learning. Heron (1989) maintained that the key to facilitation is great flexibility of style in making educational decisions. Decisions may be made for the learners, with the learners or decision-making may be delegated to the learners. Facilitators thus operate in three modes: hierarchical, co-operative or learner autonomy. These are not discrete, Heron argued, but overlap and can be used with varying degrees of emphasis according to the nature of the group task to be achieved. In addition to the facilitator modes, Heron defined six dimensions of facilitation, planning, meaning, confronting, feeling, structuring and valuing, that require to be addressed by the facilitator. The dimensions overlap and interweave during group activity and can be tackled using one of the three modes. An effective facilitator can use all of the three modes in each of the six dimensions as and when appropriate, the dimensions and modes permutation providing 18 options. Heron acknowledged the personal characteristics of facilitation, pointing out that facilitator styles are unique and distinctive, containing a large element of self that transcends the rules and principles of practice.

While Heron's model is useful for analysing professional education, Taylor (1997) identified that the model was limited in professional education as it only considered the interactions between the facilitator and the learners. Decision-making was viewed as lying with one or other or both. In the current environment of professional education there will be constraints on both learner and student from professional regulatory bodies and from the educational institution. The facilitator is thus at the interface between these

bodies and the students and has to perform mediating and linkage functions in addition to the assisting and assessment roles identified by Heron. Taylor highlighted the potential for problems that may arise when a student presents a view that does not match professional values. The facilitator is charged with presenting an alternative view and with monitoring the acceptance of the new perspective by the student. Taylor (1997) argued that facilitation in professional education is influenced by context at three levels: context at the political and economic level, context at the institutional level and context at the microlevel of the department. Decisions made at each of these levels will place demands on facilitators over and above the demands of student learning and thus will influence the style of facilitation adopted. Demands of stakeholders that particular content be learned, for example, can be restrictive, pushing facilitation styles down a more directive path than the facilitator might otherwise have chosen.

There are several perspectives on the amount of direction that should be provided by facilitators. Brookfield (1986) viewed the facilitator's role as a form of transactional dialogue, one of challenging students' perspectives and encouraging them to evaluate critically their experiences and ideas. Boud (1987) presented the role of the facilitator as being one of planner, evaluator and resource person and also an instrument of social action and change. Although Boud's perspective is more directive than Brookfield's, its focus on action and change makes it more useful for facilitation of constantly changing environments such as healthcare. The role of guiding students through the relationship between professional requirements and conflicts that arise from learning was addressed by Jacques (1992) who claimed that facilitators should concentrate on developing what

students know rather than looking at what they are expected to become. The role of the facilitator is thus complex and varied. It is one in which there is challenge, not only for the student to learn, but also for the teacher to adopt a different set of actions and interventions.

Research into PBL Facilitation

In the literature pertaining to PBL relatively little is documented with respect to facilitation and even less about PBL facilitation in nurse education. Although the McMaster Health Science Faculty has a School of Nursing, little literature has emanated from it. Despite (or perhaps because of) the ardent adoption of PBL by medical schools in the United States of America, there is no matching enthusiasm in the American nursing literature. Most of the research into PBL in nursing has been generated in Australia. It remains to be seen whether the current interest in PBL in UK nurse education will create a corresponding amount of research publications.

Facilitation, in the existing material, tends to be conceptualised into guidelines and principles. How these guidelines and principles are implemented during PBL seminars is not reported. There is a dearth of detailed material about the lived world of PBL facilitation. Much of the published material is written from an anecdotal perspective and lacks a rigorous research base. Material that is based on research tends to be either quantitative or single person narrative. Evidence on the effectiveness or otherwise of particular interventions is poorly addressed. As a novice PBL facilitator, Haith-Cooper (2000) found the literature conflicting and unhelpful. Facilitation appeared to be a

nebulous concept, a balancing act between intervening too much and saying too little. She highlighted the need for research to create a more consistent definition of facilitation in PBL. The issue is further compounded by the debate as to what does and what does not constitute PBL. The definition of PBL adopted by an institution will influence the ways in which PBL seminars are run and hence the corresponding facilitation styles.

Barrows (1986) pointed out the influence of the tutor on the type of PBL operated, expressing concern that inadequate tutoring would affect the effectiveness of PBL as a strategy. Tutor selection and preparation, he argued, was a major concern for institutions implementing PBL. His concerns were reinforced two years later with the publication of *The Tutorial Process* (Barrows, 1988) in which he set out thirteen general principles for PBL tutors that he intended to be sufficiently detailed to guide facilitators. Although some of the general principles suggested by Barrows were specific and understandable, for example 'The tutor should avoid giving information to students', others are less well-defined and open to misunderstanding. To 'modulate the challenge of learning between boredom and overload', for example, would require considerable expertise in a range of interpersonal and teaching skills. Barrows' principles were based on his extensive experience of PBL, including working with and training facilitators. They were, however, formulated for a specific student cohort, namely North American medical students, who were in the main young, motivated, had already completed a degree, and who worked with a maximum of eight students per group. As PBL spread to other cultures and disciplines with a more diverse student body other perspectives on facilitation were required.

Margetson (1994, 1997) argued that good facilitation was simply good teaching. It required skills that teachers already possessed: questioning, probing, encouraging, critical reflection, suggesting and challenging, but only where necessary. Margetson's argument conflicted with the views of Katz (1995) and Wetzel (1996) who stated that new skills needed to be learned, as facilitation skills were not commonly used in traditional education. Barrows and Tamblyn, as far back as 1980, also claimed that the skills required were 'new'. Oliffe (2000), in a reflective account of his experience of becoming a PBL facilitator, supported this view, asserting that facilitation was not a skill commonly used in academic teaching. Des Marchais *et al* (1993) indicated that tutoring small PBL groups required a different pedagogical expertise from that possessed by medical teachers, which in turn required that facilitator training had to become an integral part of the curricular shift to PBL.

Katz (1995:55) claimed that facilitation in nurse education was a 'logical and exciting extension' of what nurses do in clinical practice. This assertion conflicts with the earlier statements that educators require to learn new skills in order to facilitate PBL. With respect to nurse education in the UK, Frost (1996) disagreed with Katz, stating that facilitation skills were not possessed by nurse educators, who tended to teach in a didactic manner and thus would be required to shift their pedagogical philosophy in order to view students as active, self-directed participants in learning. Creedy and Hand (1994) highlighted the difficulty of achieving this shift while Andrews and Jones (1996) reported the adverse effects on students where the shift failed to occur. Linked to the need for a

shift in personal pedagogical stances is the degree to which facilitators should intervene and how this can be achieved without taking over the PBL group. Andrews and Jones (1996), Pansini-Murrell (1996), and Haith-Cooper (2000) all identified that achieving this balance was problematic and that further research was required.

The issue of whether the skills are new or existing will relate to the teaching methods and institutional context that existed before the implementation of PBL. Few studies provide such details making it difficult to judge what skills teachers had before becoming facilitators. Silins and Murray-Harvey (1994) found this problematic, stating that there was little guidance in the literature for novice facilitators as each institution relied on its own set of assumptions, attitudes, skills and strategies for facilitation, making the techniques difficult to write about as a guide to others.

A comprehensive overview of the frequently conflicting literature surrounding facilitation for PBL was presented by Neville (1999). Neville attempted to synthesise a coherent picture of an effective tutor from what he perceived as the dichotomy of content versus process facing prospective facilitators. The evidence presented by Neville suggested that the facilitative role covers both tutorial process and learning achievement. Facilitators should possess some level of expertise beyond that of the students. He discounted the work on the use of student tutors as being confusing and inconclusive and coming from mainly one institution (University of Maastricht (Limburg)). The degree of directiveness and leadership should vary according to the level of the student, decreasing as the student develops maturity in PBL. Assessment of student achievement, Neville

suggested, is best left outside tutorials as there is little evidence to support the tutor as an effective evaluator of student performance, thus shedding one of Heron's (1989) three facilitator roles. Support for Neville's position comes from students (Alpert *et al*, 1999), who stated that PBL should not be graded by the facilitator as introduction of judgement interferes with student discussion and alters the facilitator role making it less assistive and more evaluative.

Rating Scales

The medical school at the University of Maastricht (Limburg) has been a major main contributor to the literature on facilitation in PBL, having undertaken research into facilitation in PBL since the early 1990s. The studies typically utilised a quantitative methodology, relying on the use of rating tools to assess facilitator performance. Work by Dolmans *et al* (1994a, 1994b) described the use of a rating scale for PBL tutors that included items related to guiding students through the learning process, content knowledge input and commitment to the group's learning. Students were asked to rate facilitators on 13 items using a five point Likert scale. The items made no allowance for the personal attributes outlined by Jaques, Rogers and Heron. The potential effects of personality clashes or dysfunction within groups were not considered. This is concerning as the results were used to identify remedial programmes for poorly scoring teachers and were also considered in decisions about promotion and tenure. Dolmans *et al* (1994a) did recognise that providing tutors with feedback on performance was not enough to increase effectiveness. They suggested that feedback should only constitute part of a broader faculty development programme that also included formal requirements of the tutor role,

how dialogue could be stimulated, what the reward system should be and what type of remedial activities should be included in the programme. A reward system for teaching excellence is a contentious issue for many institutions where traditionally promotion has been linked to research activity. Remedial activities such as compulsory attendance at workshops before being 'allowed' to facilitate again, are a controversial issue in an environment where personal autonomy is highly valued.

None of Dolman's research on PBL identified what facilitators actually did. Further work at Maastricht by de Grave *et al* (1998, 1999) reported on another rating scale devised to test the effectiveness of facilitators. This scale, the Tutor Intervention Profile, was based on work undertaken by Hogan and Pressley (1997) that identified seven characteristics of expert human tutoring. From these characteristics de Grave *et al* identified four dimensions of tutor behaviour; elaboration, directing the learning process, integration of knowledge and stimulating action and individual accountability. First and second year undergraduate medical students were asked to rate facilitators on 33 statements using a five point Likert scale. The results were then analysed and classified to provide profiles of poor, average and excellent tutors. De Grave *et al* did not indicate the length of time spent by each facilitator with a PBL group nor did they provide information on which techniques tutors actually used with their groups to demonstrate the four dimensions. Sixty-seven tutors were rated across 67 units. As the Maastricht medical programme is based on six week units, with a new PBL group configuration and a new facilitator for each unit it is likely that each facilitator was with the group for only six weeks, a short time in which to build up a tutor/student relationship. Effectiveness was not defined nor

was the level of facilitator expertise stated. De Grave *et al* did not match the level of tutor experience with their rating from students nor was perceived expertise in facilitation cross-linked to student performance in the Maastricht study. De Grave *et al* did point out that students might not be the best judges of facilitation expertise. They presented no evidence to demonstrate that the tutors, in fact, exhibited the behaviours rated by the students. The 33 item scale Tutor Intervention Profile was administered to the students at the end of their PBL sessions. A programme evaluation form, which included an overall rating of tutor effectiveness on a scale from 1-10, was administered at the same time as the Tutor Intervention profile. Students are seldom interested in evaluation forms unless they have a particular grievance and may give only scant thought to the ratings. The administration of too many multiple item evaluation forms in a short time frame may thus have an adverse effect on the reliability of the results.

Other institutions have formulated scales in an attempt to evaluate facilitator performance. A tutor evaluation scale for formative purposes was developed at Brock University in Ontario for an occupational therapy programme. (Hay, 1996) The scale utilised a 19 item, seven-point Likert scale rated by students. Completed scales were processed centrally and returned to the tutor and group within a week. They provided quick feedback and allowed tutors to make prompt responses to problematic areas identified. However, the scale only rated performance at one point in time and therefore was less helpful in providing feedback of performance over a long period. Kaufmann and Holmes (1998) asked tutors for the first year of Canadian undergraduate medical programme to self-rate their content expertise using a 17 item, five-point Likert scale.

Those who rated their expertise highly claimed that they presented or explained the PBL cases more frequently. Thus those with low exposure to, or inexperience in PBL found the facilitator role difficult to maintain. Tutors who seldom explained cases rated PBL more highly as a learning and teaching strategy than those who explained them frequently. Both groups were rated equally by students, other factors being perceived as being more important in facilitation. Kaufmann and Holmes did not identify the other factors, or state why students perceived them to be more important than tutor expertise.

Des Marchais and Chaput (1993) reported on an international study undertaken to identify PBL tutors' roles. Eight tutor tasks were identified by a committee of experts and each task was ascribed an operational definition. These tasks included managing the PBL method, facilitating the functioning, guiding the study of specific contents, favouring autonomy, motivation, evaluation and collaborating with the administrators of the study programme. Validation of the tutor tasks was undertaken externally across a network of five medical schools and internally in the home institution. The importance attributed to each of the tasks was found to vary according to the approach to PBL adopted by each of the schools. Facilitating group functioning and managing the PBL method were ranked highest by all of the medical schools in the study. Des Marchais and Chaput gave no indication of the techniques used by teachers to facilitate group functioning or manage the PBL method. Participants in the study were asked only for an opinion, not for evidence to indicate how they actually implemented the tasks. There was no student involvement in any part of the study. Students were not asked to contribute to the compilation of the tasks nor were they asked to rate the tasks. Tasks that may be

perceived as important to teachers are not necessarily those that are important to students or the ones that are most effective. Work by Vernon (1995) conducted in the United States of America again sought tutors' opinions about PBL through multi-site questionnaires combining Likert-style and open-ended questions. The findings were inconclusive, indicating that neither PBL nor traditional medical education was superior. Teachers who enjoyed PBL rated it highly as a teaching strategy; a finding that could apply to most learning and teaching strategies. PBL was particularly popular with primary care and 'non-traditional' specialities. Vernon suggested that people who rated PBL more highly would be more likely to be effective as tutors although there is no data to support this.

Dimensions of PBL Facilitation

The de Grave *et al* (1999) study was based on four dimensions of facilitation. Other studies (Schmidt and Moust, 1995; Dahlgren *et al* 1998) identified two factors; one related to the PBL process and the other associated with the learning of content. From a large scale study of Dutch medical students' end of course questionnaires, Schmidt and Moust (1995) identified factors that they termed social congruence and cognitive congruence. Social congruence measured the tutor's liking for and interest in the student and would appear to reflect the genuineness and prizing of students identified by Rogers (1983) and Heron (1989, 1999). Cognitive congruence related to the tutor's ability to adapt his personal knowledge base into student terms and concepts in order to assist the students to understand and explore issues raised from the PBL case. The former concept would appear to reflect the interpersonal relationship in facilitation raised by Rogers

(1983) and Heron (1999). The results were based on questionnaires rather than interviews, with the questions being pre-set by the tutors. Only scant information is provided about the actions undertaken by tutors in relation to the two dimensions or if they another variation on the content and process aspects of PBL. No follow up study was found indicating if the information was used in future facilitation.

Dahlgren *et al* (1998), from qualitative analysis of data derived from interviews with seven PBL facilitators reporting on their experience over a two-year period, identified two sets of characteristics that they labelled supportive and directive roles. Tutors who adopted a supportive role were concerned with the students, their activities and the influence of PBL on their education, whereas tutors in directive roles were more concerned with the learning of content. The findings reflect teachers' perspectives on PBL and again highlight the personal aspects associated with facilitation. However the results provide only minimal insight into the behaviours within PBL seminars that led to the classifications.

In contrast Wilkerson (1996) asked first year American medical students to provide written, open-ended reports on the ways in which tutors were most helpful in promoting learning. Four categories were identified from the results: balancing student direction with assistance, contributing knowledge and experience, creating a pleasant learning environment and stimulating critical evaluation of ideas. The comments from the students identified examples of interventions by facilitators and thus provided insights into the PBL seminar. One of the few reports of observational research into PBL was also

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undertaken by Wilkerson *et al* (1991) who videotaped four PBL groups and their tutors. The videotaping was followed up with semi-structured interviews with the facilitators and the completion of tutor rating scales by the students. Five themes emerged from the analysis of the tapes, interviews and evaluations, including the pattern and style of tutor talk, the pattern of student exchanges, and silence and interruptions. Although the authors claim that the research design was qualitative, the findings were reported in a quantitative manner that lost the richness of the data and, while the report presented a snapshot of the four groups, it did not provide detail of effective tutor behaviours.

Facilitation, Group Dynamics and Gender

Tipping *et al* (1995) identified that although group dynamics was consistently referred to as an important factor in the success of PBL, few studies addressed how group behaviour within seminars could be analysed and managed. Tipping's research team used videotapes, observation, projective questions and post-tutorial questionnaires with 27 Canadian undergraduate medical students to create a description of a successful tutorial. The emotional climate of the tutorial, facilitator interaction (participation and listening) and leadership were given as seminar strengths on pre-testing by students and faculty. Observational data revealed a lack of cohesion in the groups, linked to poor productivity and teacher-centred communication patterns. Post-tutorial questionnaires showed a lack of reflection despite this element having been emphasised in teacher training sessions. Tutors and students appeared unaware that the group dynamics were poor or that they had influenced the effectiveness of the PBL session. Tipping *et al* concluded that more

training on creation of emotional climate and group dynamics were necessary for staff and students on PBL curricula.

A rare description of a British nursing PBL group in action was provided by Biley and Smith (1999). This single case group observation identified the problems experienced with group dynamics, the students displaying a degree of anxiety and discomfort beyond that suggested in the literature. The process was also hindered by the passivity of the majority of group members. The attributes of the group influenced the facilitator who tried not to intervene but was reluctant to allow the group to flounder. Despite the poor group dynamics the students did learn independently and take responsibility. Biley and Smith stated that the learning occurred as a result of a fear of failing rather than a thirst for knowledge.

The literature was not deliberately searched for gendered differences but it was noticeable that there were very few articles on the relevance of gender in PBL. Given the debate on the influence of gender on learning style following the publication of *Women's ways of knowing* (Belenky *et al*, 1986), some exploration of this aspect in relation to PBL might have been expected. Most of the early PBL articles were written by men, probably linked to male domination of medicine and hence medical education at the time of writing. As more women have become involved in medical education and begun to write about PBL, the focus has started to change, with more articles related to student attitude and behaviours rather than outcomes being published. In a book of international PBL case studies in medical education (Schwartz *et al*, 2001) the only cases on facilitation are by

women. No studies that addressed gender issues with respect to facilitation were found. In several studies, gender issues were mentioned incidentally. Tipping *et al* (1995) observed that the sole female student in a group was always delegated to a secretarial role. Doucet *et al* (1998) in a small-scale Canadian study using PBL for continuing medical education, found that more women than men chose the PBL format.

Two studies addressing gender in relation to student group dynamics, were published in 1998. Kaplowitz and Block (1998) conducted a retrospective qualitative study on the experience of a block of study in single-gender PBL groups in an American law school. Before the single-gender group experience, the women felt disconnected in some way, either isolated, misunderstood or devalued. The women noticed that they had a more tentative approach and that this had led to their being overwhelmed or ignored by the men in the group. The women reported increased levels of comfort in the single-gender groups. They continued feel comfortable when the groups recombined. The men reported feelings of discomfort in the mixed group which continued into the single-gender group. On reflection from a position 10 years later, the women recalled the single-gender group as a positive experience that was supportive and helped them towards an increased understanding group dynamics. The improved understanding was beneficial on return to the mixed gender groups. The men did not perceive any benefit from the single-gender groups and reported feelings of anger, rejection or hurt that the women had wanted an all-women group.

The second study, by Mpofu *et al* (1998), was undertaken with first year undergraduate medical students in the United Arab Emirates. For cultural and religious reasons sexual segregation of students is practised throughout undergraduate medical programmes in the United Arab Emirates, therefore no comparison with mixed-gender groups was available. Data was collected from students by a questionnaire, developed from Tipping *et al* (1995)'s study of group dynamics. Students were asked to rate 41 aspects of group dynamics using a 10 point scale. Tutors were also asked to complete the questionnaire, but additionally were invited to make free comment. Follow up interviews with a group of male students and a group of female students were undertaken to identify the influence of gender on group dynamics. Tutors were not invited for interview. Mpofu *et al* reported that male and female students focused on different aspects. The women were more concerned with the learning outcomes and desired the assistance of an expert tutor. Female students perceived practice in the role of group leader as important and expected compiled group work plans to be adhered to as agreed. Male students, in contrast, attached more importance to a suitable environment in which they would each have individual time to air views than to the achievement of outcomes. Neither study reported on the effect of facilitator gender on the group dynamics, possibly because the facilitator's gender matched those of the single-sex groups in both studies.

Schwartz, Mennin and Webb (2001) presented a series of case studies on the experience and practice of PBL. Most of the studies presented deal with issues concerning students. Two contributors, however, raised areas of concern related to teachers. Coumeya (2001) identified the need for medical tutors to have training in modelling self-evaluation. Like

Tipping *et al* (1995), she recommended that facilitator training should include practice in discerning where there are problems with group dynamics. The failure to recognise problems with group dynamics appeared to be peculiar to medical educators, as reports from other disciplines regularly reported group dysfunction. This lack of reference to group dysfunction in the PBL literature has led several new implementers to question if they were using the strategy correctly or if medical student were in some fundamental, non-dysfunctional way different to students in other disciplines. The work of Tipping *et al* (1995) and Coumeya (2001) indicated that there are problems in group dynamics in medical education but that the problems are either not recognised or not dealt with by the tutors.

The second tutor-related issue, Miflin and Price (2001), suggested that many facilitators have only a hazy understanding of what their role actually is. Building on earlier work in an Australian graduate medical programme (Miflin *et al*, 2000), they identified from tutor evaluations that facilitation of PBL was based on keeping a low profile and letting the students discover for themselves. The difficulty was compounded by fixed resource sessions, such as lectures and laboratory work, where teachers raised further problems rather than helping students to answer issues from the PBL scenarios. Students who failed to produce solutions to problems were labelled either as lazy, arrogant or stupid by teachers who were anti-PBL or as lacking in self-confidence by teachers who were pro-PBL. Miflin and Price (2001) recommended that teachers should be encouraged to reflect on their actions as facilitators and given the opportunity to share experiences. Evaluation of PBL sessions by students and tutors in an English medical school revealed a similar

lack of clarity about the facilitator role (Maudsley, 1999). Tutors in problem-based learning were reported as being 'shadowy' figures. Their legitimate role can be undermined, Maudsley argued, by viewing student-centred as being teacher-inactive. Maudsley claimed that lack of subject experience led teachers to interact less than was necessary when students were discussing these areas. Tutors also intervened less through fear of derailing students' motivation to discuss topics (Maudsley 1999). This study supported the findings of Kaufmann and Holmes (1998) where tutors with content expertise intervened more. Conversely Kaufmann and Holmes perceived the increased intervention as negative, whereas Maudsley indicated that increased appropriate intervention enhanced the student experience.

Developing PBL Facilitators

Several authors have argued for specific training for PBL facilitators. Both Maudsley (1999) and Mifflin *et al* (2001) emphasised the need for training to undertake the facilitator role, which they claim differed substantially from that of the 'traditional' medical teacher. Suggested elements in the training included reflection, self-awareness and team-management skills.

Several accounts were found of the content of workshops and training programmes. Drummond-Young (1998) described the Institute of Nurse Educators scheme to provide tailor-made facilitator training programmes for teachers who wish to implement PBL. Olmesdahl and Manning (1999) reported on a training programme for prospective facilitators that employed role-play to assist teachers in acquiring facilitation skills.

Overall evaluation suggested that the training was helpful but the areas of assisting and motivating students in a PBL system was thought to have been inadequately covered. Johnston *et al* (1999), in an article that aimed to introduce the concepts of PBL to clinicians who have had little or no exposure to PBL, asserted that successful tutorials are characterised by 'much discussion, free expression and change of ideas' Dysfunction in groups was defined simply as students who arrived late, were disorganised or unprepared. Johnston *et al* claimed that the students themselves should identify any problems and deal with them. No mention is made of students who persistently do not attend or do not participate.

Quinlan (2000) outlined the use of an exercise in staff development based on workshops where facilitators were given a PBL scenario and the associated student-generated learning issues and asked to rate the issues in order of relevance from best to worst in terms of likeliness of generating discussion. Rankings were compared and discussed then linked to course objectives. Participants reported that the sharing of experiences about a real and relevant situation was valuable and increased confidence in future PBL sessions.

One of the most extensive programmes of staff preparation and development for PBL facilitators was undertaken in a Scottish school of nursing and midwifery (Murray and Savin-Baden, 2000). Facilitators undertook a three day facilitator training programme prior to implementing a problem-based course. Staff development with an expert external consultant continued throughout the first two years of the new problem-based course. The continued expert support during the implementation phase was reported as being

particularly beneficial. The need for continued support in addition to initial facilitator training was also identified by Baroffio *et al* (1999) who found that it took three years' practice in addition to initial training and further workshops to become expert in facilitating PBL.

The Lived Experience of PBL

Research on facilitation of PBL groups in higher education has been limited. Feletti (1993) called for rigorous research to find 'what works and what doesn't' in PBL. Maudsley (1999) pointed out that tutors are 'shadowy' figures in published reports on PBL, claiming that 'student-centred' is often wrongly perceived as 'tutor inactive', undermining the legitimate role of the facilitator in PBL, a perception supported by Wilkerson (1995) who noted that novice facilitators tended to stay silent. As stated above, much of the published material relates to facilitation of students in undergraduate medical curricula. Students in other disciplines generally have similar characteristics in relation to age (school leavers) and entry qualifications (A-level, Scottish Higher equivalencies) to medical students. Nursing students, in contrast, have a wider age range and more diverse entry qualifications and backgrounds. They are also recruited in larger numbers, although this may be compensated for by larger numbers of full-time teaching staff. Research into the lived world of the PBL seminar is required to inform the debate on how PBL may best be facilitated, not only for nurses but for students of all disciplines.

The lack of studies into the actual processes and behaviours that take place within PBL seminars was noted by Hak and Maguire (2000). They claimed that only qualitative

studies of the process itself will help teachers begin to understand how the desired effects of PBL are achieved and that to date there are very few such studies. They cite the naturalistic studies of PBL undertaken at the University of Southern Illinois which videotaped 'numerous' PBL tutorials over a period of five years. Much of the analysis of the PBL sessions, however, focused on student rather than tutor behaviour. Despite the international reputation of Southern Illinois with respect to PBL, the results from this study were published in less well-known journals, including one available only on-line. Previous research on PBL from Southern Illinois has featured strongly in journals such as *Medical Education* and *Academic Medicine*. It is unclear why this study was not published in journals with a higher profile. As the material is of comparable quality, it may have been due to reluctance by the American medical publishers to accept articles based on qualitative research, a bias that is also evident in some UK medical publications. This study by Koschmann *et al* (1997), examined what actually happened during a PBL seminar. The article presented an analysis of a selected segment from a PBL seminar including the identification of how the group's perspective on a topic changed and the facilitator's role in providing scaffolding for student reasoning. Using techniques from discourse and conversational analysis the researchers developed a description of what participants actually do in PBL with the intention of improving understanding of what PBL actually is. Further studies of this sort are required to provide a broader perspective of the facilitator and learner processes in PBL.

Conclusion

The literature on PBL published from the 1970s until the early 1990s is almost unanimously enthusiastic about the strategy. While the Colliver review of 2000 is less

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enamoured with PBL, there is still a conviction that, while the benefits of PBL perhaps have been overstated, the strategy offers a challenging, motivating and enjoyable approach to education, the first two attributes becoming of increasing importance in the present educational context. Much of the literature focused on medical education, which is, however, ahead (timewise) of other disciplines in implementing PBL. The effectiveness of PBL continues to be judged mainly in terms of quantifiable student outcomes, thus reducing the attention on teacher actions. The more recent work on the facilitator role (Tipping *et al*, 1995; Koschmann, 1997; Maudsley, 1999; Baroffio *et al*, Mifflin and Price 2001), also conducted in medical education, indicates that there are problems with teachers' understanding of their role in PBL. If teachers are uncertain about the strategy, it is unlikely that students are receiving maximum benefit. Where PBL becomes routine there is a risk that it will be poorly implemented. The literature is reticent on the minutia of the organisation of PBL, tending to perceive it as unimportant to the extent of failing to notice group dysfunction. In many ways the literature says more by what is left out rather than what is included. The lack of contextual detail and the variations of PBL have contributed to conflicting and confusing accounts of the facilitator's role in PBL.

Although other disciplines are beginning to write about PBL, the majority of the literature still focuses on medical education and on either the McMaster or Maastricht models for PBL. Following medical perspectives on research, the randomised controlled trial as the gold standard, the medical literature tends towards quantitative studies based on student outcomes and perspectives that can be subjected to statistical analysis. Detail on the

context of studies is often lacking, leaving the reader to surmise and possibly misinterpret the results presented. The influence of the PBL facilitator, although acknowledged as important, has been largely ignored. Only within the last five years has there been some recognition that clinicians, even when experts in their field, require training and development to support students effectively. The literature lacks a qualitative research perspective into the experience of PBL as lived by its students and facilitators. Although nurse education has recognised the potential of PBL, as yet, there has been no corresponding upsurge in literature about its application to nursing. Teachers are unsure about the facilitation role and how it should be developed. Existing literature provides little assistance with this dilemma. Using a qualitative approach to explore the process of becoming a PBL facilitator, this study provides detail of and interpretive insights into facilitators' lived experience, the facilitative approaches adopted by nurse teachers and the pedagogical beliefs required to sustain the role.

The next chapter presents the context in which the study took place, highlighting the influence of institutional history and culture in an organisation in order to illustrate the complexities of introducing PBL in a newly-created school of nursing where staff are simultaneously dealing with other demands for change.

Chapter Three: Context

THE SENSE OF THE SETTING

Bryman 2001

Introduction

The context in which research is undertaken will have some influence on the interpretation of the findings. The research setting is more than the physical environment in which the study was conducted. In this study it also encompassed the socio-political context of the institution and the relevant history. An awareness of these aspects of the culture will provide a sense of the setting and assist in the overall understanding of the research. This chapter therefore presents a brief overview of the national and local context and the culture within which the research occurred.

The research was undertaken in a Scottish School of Nursing and Midwifery¹ between 1997 and 2001. Since 1996 nurse education in the United Kingdom has been situated within Higher Education Institutions. Factors related to the history of nurse education, the vocational element of the programmes, the large number of students and funding arrangements cause nursing programmes, particularly at pre-qualifying level, to differ substantially from other higher education courses. At the time of the study the School of Nursing and Midwifery had undergone (and continues to undergo) changes that had an impact on the culture within the organisation. The implementation of PBL was only one of these changes. PBL has its own terminology. A glossary of PBL terms as used in the research is given in Appendix 1.

National Context

The Nurses and Midwives Act (1979) made provision for the minimum academic level for initial (pre-registration) nurse education in the United Kingdom to be that of

¹ The research was undertaken in a school of nursing and midwifery. Legislation and UKCC regulations also refer to nursing and midwifery. The participants in the research were nurse teachers. The research did not include the midwifery programmes. Therefore 'nurses' and 'nursing' will be used throughout.

a Diploma of Higher Education. The then newly created United Kingdom Central Council for Nursing, Midwifery and Health Visiting (UKCC) was given responsibility for the standard, kind and content of pre-registration nursing programmes. This was implemented through four National Boards (England, Wales, Scotland and Northern Ireland) for Nursing, Midwifery and Health Visiting. The academic award was conferred by higher education institutions (HEIs). This started the so-called 'Project 2000' initiative and the transfer of the delivery of the education of nurses and midwives from monotechnic colleges of nursing and midwifery into departments and schools within universities and colleges of higher and further education. Although the Act was passed in 1979, it took a decade for the first Project 2000 diploma programmes to be implemented. The first programmes began as pilot programmes in selected colleges in England in 1989. In Scotland all Colleges of Nursing and Midwifery commenced the pre-registration diploma programmes in the autumn of 1992.

The transfer of nurse education into higher education institutions in Scotland took place in two phases. In 1991 the Scottish Office invited HEIs to tender for the fifteen nurse education providers then outside the higher education system and funded as part of the NHS by the Department of Health. The contract included joint validation of pre-registration programmes with the National Board for Nursing, Midwifery and Health Visiting for Scotland (NBS) and the award of the Diploma of Higher Education in Nursing. Responsibility for admission to, and retention on, the professional nursing registers remained with the UKCC. Although linked with HEIs, the fifteen colleges providing nurse education continued to receive separate funding from the Department of Health and, to all intents and purposes, remained self-

governing. The second phase of the transfer occurred in 1996. HEIs were invited once again to tender for the pre-registration nurse education contracts. In this second phase the colleges of nursing and midwifery relinquished self-government, becoming fully integrated with, managed by and subject to the rules and regulations of the successful institution. The contracts were awarded on a five yearly rolling basis.

Funding for the pre-registration nursing programmes continued to be allocated by the Department of Health through the Scottish Executive. As the funding was not transferred to the Department of Education, only those degree programmes already run by universities prior to 1992, received monies from the Scottish Higher Education Funding Council (SHEFC). Unlike England, where purchasing of pre-registration nurse education was devolved to consortia of local NHS Trusts, the Scottish Executive continued to purchase Scottish pre-registration nurse education centrally. The responsibility for the purchase of post-registration nurse education, however, was transferred to the individual NHS Trusts in Scotland. The fifteen existing providers of nurse education were merged with seven HEIs, two of which had established departments of nursing. A further four HEIs continued to offer SHEFC funded degree level programmes, but not Project 2000 pre-registration programmes at diploma level. As stated above, the individual colleges of nursing were required to design their pre-registration programmes in accordance with UKCC regulations and the requirements of the HEIs. The National Boards had responsibility, through the joint validation process, for ensuring that the new schools and departments of nursing met the UKCC regulations. Pre-registration nursing programmes currently train nurses for one of four parts of the UKCC register: adult, child, learning disabilities and mental health. These four specialities are referred to as the 'Branches' of nursing. Unlike other university

courses the pre-registration nursing programmes run over 45 weeks per year for three years. Students, and thus staff, do not have the traditional long vacation during the summer months. The only time when there is no student teaching is over the Christmas and New Year period.

The standard, kind and content set by the National Board for Nursing, Midwifery and Health Visiting for Scotland (NBS) for the Project 2000 programmes included teaching across a minimum of seven theme areas. These included health promotion and professional issues, themes that had had only minimal input in the pre-1992 programmes. Additional teaching time was required also for the sociology and psychology themes. Teaching strategies tended towards lectures with a minimal amount of small group work and some open learning. Time for teaching the increased subject material came from a reduction in the number of hours required in clinical practice, from around 4,000 to 2,300. Many colleges, including the larger of the two former colleges in this study, also reduced the amount of time spent on teaching clinical skills in the college setting. Practical rooms were converted into additional classroom space. The rationale for this being that clinical skills were best taught by clinical staff in practice areas through preceptorship programmes. Unfortunately this decision coincided with cutbacks in the NHS which led to a reduction in the nursing workforce and hence the amount of time available for qualified staff to teach students. The perceived failure of nurse education to teach clinical skills subsequently brought complaints from clinical staff, particularly in England, that nursing students were not adequately prepared for practice on qualification. An allegation that had to be addressed by the new nurse education providers in 1996.

Local Context

The School of Nursing and Midwifery in which the study was undertaken was formed in 1996 by the merger of two colleges, Dunagoil College² of Nursing and Midwifery and Ascog College of Health Studies, following a successful bid by the University of Kingarth. The announcement of Kingarth as the successful bidder was not widely expected as in the first phase of the transfer the two colleges had been linked with another institution, Invergarth University. The newly created School was an addition to a Faculty that had consisted previously of two schools training other health care professional groups. The university did not have an existing department of nursing and midwifery, although the faculty did offer a small number of baccalaureate and masters degrees in nursing by a distance learning route. The creation of a School of Nursing and Midwifery at the University of Kingarth did not receive universal approval within the university for several reasons: nursing was not perceived as an academic discipline, the main programme offered by the School was not at first degree level and neither of the colleges had a track record in research. Teaching rather than research secured the main income for schools and departments of nursing and midwifery at the time of the integration, resulting in a low level of research activity in the former colleges. As neither college had had its programmes validated by Kingarth University prior to the merger, the staff were unfamiliar with the structures and systems within Kingarth University. There was an impression within the university that the addition of a nursing school would lower, rather than enhance, its profile. Kingarth, a pre-1992 university, had been asked to admit students and staff who really would have been better suited to Invergarth, which had achieved university status only within the past two years.

² Pseudonyms have been used for the two former colleges of nursing and both universities

Dunagoil, the larger of the two former colleges was on the same campus as one of the other health care schools. The smaller college, Ascog, was 35 miles distant from the Dunagoil campus. The Dunagoil campus had approximately two-thirds of the School's teaching staff and took approximately two-thirds of the student intake. These circumstances led the Dunagoil staff to refer to the Dunagoil campus as 'the main campus'; a term refuted by the Ascog staff who pointed out that the university's main campus was situated five miles from the Dunagoil campus in the centre of Kingarth.

Although the two colleges served adjacent regions of Scotland and had been linked with the same HEI in 1992, only minimal collaboration had taken place between them before the merger. As the two former colleges were close geographically, it had been customary for the period of external teaching practice required by clinical teaching and nurse tutor programmes to be undertaken on the opposite campus. Most staff knew two or three colleagues on the other campus and almost all had some insight into the culture of the other. The Dunagoil College of Nursing and Midwifery had taken over two smaller colleges of nursing and midwifery in the 1990s. Although Dunagoil College (now the Dunagoil campus of Kingarth University) retained some study accommodation in these smaller colleges, all the formal theory teaching took place on the Dunagoil campus, necessitating a considerable amount of travel for the transferred staff. Teaching staff from the two smaller colleges stated that they still felt 'outsiders' at Dunagoil some five or six years after the merger and often commented that they felt more at home on the smaller Ascog campus.

Different cultures prevailed in each college. The Dunagoil campus viewed nursing mainly as an extension and application of either biological or behavioural science

depending on the branch programme; biological science for the adult and child branches, behavioural science for the learning disabilities and mental health branches. Most clinical skills teaching had been devolved to staff in the clinical area. Many of the managerial positions within the former college had been held by staff with a background in mental health nursing. The management style appeared to have been largely autocratic, although conversation with staff indicated that a considerable amount of effort had gone into working round, rather than with, management. On the Ascog campus, nursing was perceived as an unique discipline, with its own body of knowledge and valuable in its own right. Although at the forefront of preceptorship preparation in Scotland, the Ascog campus had retained its practical room and had continued to teach a wide range of clinical skills within the college setting. The management style at Ascog had been paternalist with most senior management positions held by staff with backgrounds in adult nursing. Although there seemed to have been a greater willingness to work with management on the Ascog campus, there was some resentment towards this paternalistic approach. There had been several occasions when staff had attempted to find ways of avoiding management edicts. A *veto* on female staff wearing trousers had brought an increase in the wearing of divided skirts, even by teachers who did not want to wear trousers. When refused permission to attend a series of NBS national study days, staff re-organised teaching cover for classes and requested annual leave to ensure that as many staff as possible attended at least one of the days.

The progressive reduction in the number of student nurses and midwives in training during the years of successive Conservative governments, from 3223 in 1987-1988, to 2213 in 1995/96, had resulted in financial stringency within nurse education in the

UK. This created a situation where very few new nurse teachers were trained and where there was very little movement of staff between colleges of nursing. In each of the former colleges in the study it had been nine or ten years since a new member of teaching staff had been appointed. Staff had worked together for a decade or more and as a result knew each other's foibles. This static situation had perhaps been less detrimental on the Ascog campus. Staff generally worked together to deliver the programmes and although there was occasional conflict, it rarely seemed to have lasted any length of time. On the Dunagoil campus, perhaps because of the larger number of teaching staff and the two take-overs, several cliques existed. This had led to several clashes of interest in the past. Many of the conflicts centred on the priority given to the subjects taught. Over time, biological science had assumed a greater degree of importance than clinical skills or professional nursing issues related to patient management. Biological science dominated the curriculum and biological science teachers had most prestige within the college.

Following the creation of the School of Nursing and Midwifery in 1996, a degree of friction existed within and between staff in the two campuses and, to a lesser extent, between the School and the rest of the university. Its causes were complex. Much of the friction was generated by the diversity in culture and the resulting differences in the programmes offered by the former colleges. Inevitably each campus believed that its programmes were superior and should form the basis for development of the new programmes. Further disharmony was created by the new School's managerial structure (Appendix 2). Although this was based on a matrix, staff in both campuses believed that the opposite campus had been unfairly favoured. Dunagoil staff thought that 'Ascogers' held a disproportionate number of top jobs, including that of

Associate Dean, while Ascog staff felt that too many 'middle' posts, including the posts to develop the new curriculum, had been given to Dunagoil staff. Teachers with a background in adult nursing, who comprised over 60% of the staff, felt that they were underrepresented in comparison with midwives and the minority branches of nursing, particularly as adult branch students made up over two-thirds of the numbers and thus provided two-thirds of the income. Teachers from the minority branches thought that adult nursing dominated too many forums.

The situation was further compounded by the financial position. While the School was funded for its pre-registration programmes on a per student basis, post-registration programmes now had to be funded on a business footing. Several members of staff from both colleges had been employed solely to service post-registration courses. Until the post-registration courses became profitable, their costs, including salaries, had to be found from the Scottish Executive pre-registration budget. As a result all staff were required to teach across pre-and post-registration programmes, adding to the overall friction within the School. One factor that reduced the amount of friction was the appointment of a Dean from another institution. As the Dean belonged to neither Dunagoil nor Ascog, she could be blamed for any disliked changes without causing ill feeling against either side.

Moving into the university setting required that many of the systems within the School, such as quality assurance, examinations and assessment procedures, had to be reconfigured to meet university rules and regulations. As several of the university systems were perceived to be out-dated and less rigorous than the existing systems within the former colleges another source of discontent was created. Feeling towards

‘the university’ was already acrimonious. Due to their lack of a research profile, teaching staff had been placed on the ‘Other Related’ pay scale on joining the university. Although the actual rate of pay was identical to that of the Academic Scale, the kudos was considerably less. Staff perceived this move as another indication of how little both nursing and teaching were valued by the university’s governing body. The general feeling that this was most unfair. The main income source of the School was teaching rather than research and, unlike other university lecturers, nurse teachers were required to possess a teaching qualification. Staff felt that their experience in education should have received recognition. The success of a small number of teachers in transferring to the Academic Scale merely added to the acrimony.

Programme Organisation

During the period of the research each pre-registration programme consisted of an 18-month Common Foundation Programme (CFP) and an 18-month Branch Programme. During the CFP students from all four branches followed the same timetable which focused, as the name suggests, on those elements common to all branches of nursing. In the second part of the programme, students were taught in branch specific groups by teachers with the appropriate clinical background. Thus, from half way through the second year of the programme, four separate strands of the programme existed. Theory teaching, which took place within the School, was combined with experience in a range of clinical settings throughout the programme. At any given point in time there were students in the School buildings and in up to 1,000 different clinical placements. Student numbers were set by the Scottish Executive. At the start of the study in 1997 the School was funded for 440 students. This number of student was too large to be accommodated in one intake. Recruitment into the programmes was

therefore made on a twice-yearly basis, thus doubling the amount of teaching (Appendix 3).

At the commencement of the new programme an attempt was made to centre CFP teaching on the Dunagoil campus. The rationale underpinning this strategy was to promote integration into university life for all new students, to facilitate interdisciplinary learning with the other health care schools and to treat each intake as a single cohort. Buses were provided to transport students from Ascog to the Dunagoil campus. The cost of transport was borne by the School. However pressures on teaching accommodation for PBL and clinical skills led to these sessions being undertaken on both campuses. The single campus strategy was not popular with Ascog students, many of whom were mature students who lived near the Ascog campus and had homes and families. The cost and poor reliability of the bus service resulted in a move to the teaching of all CFP subjects on both campuses in 1999. The pre-registration programme now had two entries per year; four branches per programme and was taught on two campuses. The logistical problems were compounded by an increase in student numbers from 440 to 525 in the autumn of 1998. Neither campus had sufficient teaching accommodation in terms of large lecture theatres or small discussion rooms to cope with the increased number of students. Clinical skills teaching space was also at a premium. To manage the student numbers, each intake was sub-divided into two streams (yellow and blue). One stream received lectures whilst the other was engaged in small group work. Once again some of the teaching load had been doubled. In the two years following the merger over 20 teaching staff out of 96 resigned on the grounds of ill health or took early retirement stating that the transfer to Higher Education was 'a change too far'.

Against this background of multi-tiered friction, staff resignations and organisational complexity, problem-based learning was launched. The rationale for introducing PBL into pre-registration nursing programmes is discussed in Chapter One. The new, pre-registration programme, to be run by both sites, was written with PBL as a major learning and teaching strategy. The decision to implement PBL did not meet with the approval of all staff. A vocal minority opposed the strategy prior to and following its implementation. PBL was a strategy new to staff on both campuses. Several staff had heard of the 'McMaster Experiment', but no-one had had experience of PBL either as a student or as a teacher. Facilitator training was undertaken by an external consultant who had no links with either campus and was not a nurse. The training days alternated impartially between the Dunagoil and Ascog sites. No faction was perceived to be advantaged or disadvantaged. Staff undergoing the facilitator days had to work together during the training sessions and had to reach agreement in order to create the materials to be used by students in the PBL sessions. Although the implementation of PBL generated another layer of friction within the School, this was balanced by an improved understanding among those teachers from both campuses who felt that PBL could offer nurse education an improved approach to teaching and the support of learning.

Programme Structure

The pre-registration curriculum introduced across both campuses in autumn 1997 employed PBL as one of several learning and teaching methods. Although much of the material was presented through PBL, students also had lectures, open learning material and clinical skills laboratories. The programme consisted of 15 modules: six modules in years one and two of the programme and three modules in year three. The

modules were integrated, covering several subject areas and containing both theory and practice elements. The amount of theory time in each module varied from three weeks to eight weeks. Although the modules were integrated in terms of subjects, they were classified according to the predominant theme - nursing, health promotion, community nursing or management. The CFP, for example, consisted of nine modules, five of which were nursing, two were health promotion and two community nursing (Appendix 4). Problem-based learning was originally employed in only the nursing modules and in one of the community nursing modules. With time and experience it was extended to the health promotion modules. It was never adopted for the management modules.

Students were allocated to PBL teams at the start of their programme. During the period of the research the mean number of teams was 22 per intake. 'Team' was the agreed term as the majority of facilitators thought that PBL resembled team working rather than group working and the term reflected clinical practice organisation. Most staff and students, however, talked about PBL groups. Each PBL team consisted of between nine and twelve students, who worked together with an allocated facilitator for the duration of the CFP or the branch programme. CFP Teams consisted of a mix of students studying for the adult branch plus students from at least one other branch. Branch teams, as the name suggests, contained students from only one branch.

Each problem-based scenario ran over three sessions; an introductory session in which the scenario was presented and learning outcomes identified by the students; a review session where students clarified any issues that had arisen since the previous session, shared material and discussed the presentation, and a feedback session where material

learned was presented and integrated to produce a solution to the problem. The material used to introduce students to the problem was referred to as the 'trigger'. The trigger took a variety of formats, for example paper case histories, simulated carers, photographs, video clips or games. In addition to the trigger, students were given a brief outline of the situation and the position from which they should consider the situation. In addition to the trigger material each scenario had a guide for the facilitator. The facilitator guide contained the expected student outcomes with indicative material for the scenario, plus prompt questions, resources and hints on timing. The guides were prepared as a resource for teachers. They were not intended to be followed rigidly or exclusively.

PBL had been used as a strategy in several nursing degree programmes in the UK prior to 1997. However student numbers were small. The Kingarth School, along with two English schools of nursing, was the first to implement PBL in mainstream nurse education in the UK. The large numbers of students, the difference between nursing students and students reported in the literature, the diversity of the nursing student cohort and the teacher unfamiliarity and lack of expertise with the PBL strategy created feelings of anxiety and excitement in the Kingarth staff. The context in which this study was undertaken was therefore a complex and multifactorial environment. It demanded a research methodology that would enable me as researcher to engage with this. The next chapter presents the research design, the rationales for methodological decisions and the evolution of my role as an insider researcher.

Chapter Four: Methodology

THE DEVIL'S IN THE DETAIL

Walter Scott 1816

Introduction

This chapter describes the planning of the research and the development of the research methodology as the research evolved. My role as an insider researcher and my interpretation of my impact on both the context and progress of the research are included as an integral part of the research progress. The aim of the study was to explore the espoused and actual conceptions of facilitation adopted by nurse teachers on an undergraduate nursing programme that utilised problem-based learning. The research ran over three cycles designed to elicit teachers' espoused conceptions of PBL and to compare them with facilitation in action over time. Through the research, I wanted to get beyond idealised representations of facilitation and to produce an account of PBL facilitation in action that would increase understanding of facilitative actions. Therefore I required a qualitative research design that would produce an information-rich account of individual facilitators, their actions and interactions in context; a design that would be sufficiently flexible to allow the research to respond to contextual changes that occurred during the life of the study.

Methodological Stance

The qualitative approach to research is not a single homogeneous entity nor is it simply a collection of individual methodologies grouped together under a convenient title that reflects their non-quantitative nature. Although it is difficult to define clearly, the approach is, according to Denzin and Lincoln (1998: 5), a set of 'interactive practices in which no single methodology is privileged'. The past two decades have seen a shift in social research away from fixed and set traditions linked with specific disciplines. This

move has been associated with an 'epistemological crisis' (Bentz and Shapiro, 1998) which has presented researchers with challenges related to the legitimacy and validity of knowledge. However, it has created opportunities for selecting and combining methods of enquiry to suit the demands of the research topic. To meet the demands of this research, the basis for the design was that of constructivist interpretivism within the ethnographic tradition and which included elements from participatory action research.

The design was situated within a constructivist interpretivist paradigm, where reality is apprehended as 'multiple intangible mental constructs that are socially and experimentally based' (Guba and Lincoln, 1994:110) The constructivist approach is concerned with understanding and reconstructing rather than explaining or predicting. The participants in the research are part of the formation of knowledge rather than being separate from it. The constructivist researcher speaks as a 'passionate participant', an interpreter who tries to elucidate meanings and clarify what is embodied in the language and actions of the participants. This position was attractive, as I was concerned with understanding and interpreting the nature of facilitation in PBL rather than trying to explain why it took the form that it did. An interpretivist design was selected to allow the research to express the meanings of the experience of becoming a PBL facilitator. Denzin (1989) stated that interpretism was a way of making the world of the problematic lived experience of ordinary people available to the reader. What has been learned by doing the research is transmitted to the reader through the interpretive account of the findings (Denzin, 1998). The collection of data on which to base the interpretative account was gathered through observation and interview.

Ethnography relates to social scientific writing about folk, using data collected from observation. The observational tradition of ethnography suited the research, which focused on what actually happened within the PBL seminars. Whilst the origins of ethnography lie in direct observation of cultures other than the researcher's own, modern ethnography covers a broader range of groups, including groups within one's own culture. Written texts or audio / video recordings may be employed rather than direct observation (Silverman, 2001). This matched the context of my research. I would be studying a group within my own culture, largely via the medium of audiotapes. Despite the current use of non-directly observed materials there is still a belief that to understand the situation fully the researcher should be an active participant in the situation (Atkinson and Hammersley, 1994). Again, this fitted with the research context, as I was involved not only as the PBL co-ordinator but also as a PBL facilitator with the same level of preparation as the other participants.

Although in many respects, I was the change agent for the introduction of PBL, I did not have the degree of control over its implementation which would have been required for a rigorous action research project. Action research design (Lewin, 1948, 1951) is a recurring spiral of planning, action, analysis and reflection, undertaken collaboratively. The research was designed in cycles but these were dictated by the needs of the evolving pre-registration programme and the developing facilitator expertise, rather than as the result of analysis and reflection. However, the potential for collaboration and on-going adaptation as a result of research findings was incorporated into the design. Grounded

theory (Glaser and Strauss, 1967) initially appeared to provide a suitable basis for the design of the research. A grounded theory approach involves the generation of theory based on comparative analysis between or among groups within a substantive area using field research for data collection. Theory is generated through the creation of categories from the themes that emerge from the data. The design entails the rigorous checking and re-checking of the emerging theory with participants to ensure that the theory created does match the situation being studied. Wolcott (1994) indicated that theory or themes may not emerge from the data or be uncovered by the researcher. He argued that the role of the researcher is to interpret the data in order to create understanding of the situation for those outside the study. Wolcott's comments equated with my purpose in undertaking the research. Making explicit the experience of becoming a PBL facilitator was more important than explanation of the process, through the generation of theory which might not develop from the data.

Analysis of the data involved interpretation of the meanings and functions of the actions of the participants. While the interpretivist approach was congruent with a constructivist attempt to create understanding from the multiple experiences of the participants, I was more concerned with exploring the nature of facilitation in PBL than in generating theory. I was comfortable with the purposive sampling and interpretative data analysis based on triangulated materials that Denzin (1998) suggested for an interpretivist design. However, during the analysis I realised that the suggested creation of grounded theory categories did not fit with my intention of making the problematic lived experience of the participants available to the reader. The research design therefore omitted the grounded

theory element of the constructivist paradigm, replacing it with a more postmodern stance that allowed the participants to speak for themselves. The 'devil' in the research would be the interpretation of the detail from the field in the written account of the findings.

Several writers (Levi-Strauss, 1966; Bryman, 1988; Patton, 1990; Gubrium and Holstein 1997, Silverman 1993, 2001) identified that qualitative research, particularly when it includes observation, requires to be flexible. The need for flexibility in qualitative research was highlighted in 1966 by Levi-Strauss who depicted the qualitative researcher as a *bricoleur* who selected whatever methodological tools are at hand to piece together a *bricolage* or patchwork of the findings from a multiplicity of views. Bryman (1988) emphasised flexibility in research design. Imposition of pre-determined and rigid frameworks on the research participants and the context, he claimed, decreases the opportunities for coming across the unexpected and hence may lead to omissions from the findings. Patton (1990) claimed that too much research is based on habit rather than on what he termed 'situational responsiveness'. In situationally research the design does not predetermine research methods or participant sample, but allows the methods used to develop as the research progresses. Patton also argued that the adoption of too rigid a design could lead to loss of data by ignoring circumstances that occurred during the progress of the research. Gubrium and Holstein (1997:102) recommended that researchers should seek a middle ground that allows one approach to balance the shortcomings of another. The combination of data collection and data analysis methods provided a wider perspective than would be achieved from adhering to a single tradition.

My Identity within the Research

The transition in social research recounted by Bentz and Shapiro (1998) includes the position of the researcher's self in the research. They recommended that the social researcher should be at the centre of her own research. Schwandt (1994) stated that an enquiry methodology requires the researcher to have a self-reflective awareness of her own constructions while Denzin (1998) emphasised that interpretive methods for making sense of the data are always personal.

My position in the research was that of a 'native', Ellis' (1993) *position of complete-member researcher*, carrying with it the risk of identifying so much as a participant that I would be unable to identify how I came to know things or articulate the principles underlying what was happening, thus leading to flawed and limited findings. I was my own subject. I had to be aware of what was happening and to reflect on why it might have happened. Researchers such as Hammersley and Atkinson (1995) suggested the creation of a *persona* by the researcher to avoid the dangers of becoming overly subjective. I was already well known to the participants. For me to have adopted a different type of identity would have confused the situation and introduced a false element into the research setting. I therefore continued to be myself, but with an increased awareness of my roles as facilitator/participant, researcher and PBL co-ordinator and the ways in which each influenced the research.

Access

Unlike patient-centred research, research such as this study which focused on teaching staff and students, did not require approval from the local research ethics committee.

However, I sought permission to conduct the research from the Faculty Board and from the Management Executive Group of the School of Nursing and Midwifery (hereafter referred to as the School). My request for permission to access staff and students was treated with some amusement by Faculty Board. Although the one of the other Schools routinely undertook research on its students, permission to access them had never been sought. Permission to access staff and students was obtained from both groups.

Access in research terms also implies physical access for the researcher to the environment where the research will be conducted, for example presence in meetings, in classrooms or in ward areas. Bowler (1997) described her experience of gaining access to the environment and potential participants but being unable to gain access to the desired data for linguistic and cultural reasons. Although I was already physically present ‘in the field’ and thus had automatic access to relevant meetings, I still needed to negotiate my access to data from the standpoint of the research.

I explained the aims and nature of the research to colleagues individually and asked for access to data consisting of recordings of their PBL sessions and interviews with me. This was obtained. Colleagues asked if I would like them to negotiate access with the students, an offer that I accepted. My data collection methods included keeping field notes. Some sources refer to field notes only in the context of interviews or observed sessions. I wanted my field notes to have a wider scope, to record statements and observations about PBL on a day-to-day basis. As I did not want this set of notes to be

covert, obtained without specific consent, I negotiated permission with School staff to keep field notes from meetings and my everyday observations.

Consent

Institutional permission to access participants does not imply consent. All research participants have the right to full disclosure, to be given informed consent, not to be harmed and to withdraw from the research without prejudice at any time (Declaration of Helsinki, 1967). Patton (1987) stated that the degree of disclosure may depend on the type of research and its setting. People are seldom deceived for long about the nature of the research; therefore, full disclosure is advisable from the start. I had no reason not to disclose the nature of the research. Full information about the purpose of the study was provided for all participants, teachers and students, in both oral and written forms and written consent was obtained before I started to collect data (Appendix 5). In accordance with Royal College of Nursing research trials advice (1992) (Appendix 6) all participants were given written information about the moral obligation of the researcher to report any evidence of poor practice that was uncovered during the progress of the research.

Four students in one team declined to give consent (they objected to being audiorecorded). The other students agreed that the team would not participate. However, they spontaneously did consent to their facilitator continuing in the study. I met them to explain that the facilitator might disclose incidents that occurred within the team's seminars in interviews with me. The students told me they had no anxieties about their confidentiality being breached. They simply did not want to have their conversations recorded.

Ethical Issues

Participants in qualitative research are particularly vulnerable to lack of confidentiality. As their actions and interactions form the basis of the report on the study, measures have to be taken throughout the research to protect identity and secure information. The research examined actions that would have occurred without the research being undertaken. No attempt was made to engineer or create situations to meet the needs of the study. Participation was optional and no detriment occurred from taking part or not taking part in the study. All participants were assured of confidentiality.

Participants in the study were given pseudonyms known only to me. I elected to use names rather than number codes to enable a writing style that would indicate my close involvement with both teachers and students and would reflect my methodological stance as a constructivist interpreter. All audiotapes and written material were removed from the School as soon as I received them. Material was thus inaccessible to casual or intentional reading or listening.

Bias

It can be argued that interpretivist research inherently will reflect the biases of the researcher and the participants in relation to aspects such as class, gender, race ethnicity and culture and that the research and its findings will be shaped by the research *genre* and selected methodology. Thus, the research will have been influenced to some degree by my Scottish, middle class, Presbyterian background, by the culture of nursing and nurse education and by the interpretivist methodology. Similar biases of class, upbringing and culture were present in the participants. Participants were more homogeneous in terms of

race, age and class than might have been present in other departments of nursing in the UK. However, this does not imply that all had similar biases, particularly concerning pedagogical beliefs.

My main bias was my belief in PBL. The constructivist stance requires the researcher to speak with a passionate voice (Denzin & Lincoln, 1994). I was well aware that I was passionate about PBL as a learning strategy that had much to offer nurse education. I was equally aware that not all teachers agreed with me. As PBL co-ordinator, I had something to prove. The participants in the study were also pre-disposed towards PBL. The study therefore had a bias towards PBL. However, without the belief that PBL was a worthwhile learning and teaching strategy the opportunity for the research would not have arisen. To this extent, the bias was integral to the context of the research.

In the early stages of the research I believed that any influence that I had on the implementation of PBL came from my role as PBL co-ordinator and not from my position as researcher. If I had not been undertaking the research, I would still have acted in a similar fashion. Any controlling behaviour for the purposes of the research would have been counter-productive. However, as the study progressed I became aware that the implementation of PBL had been affected by the research. The audiotapes of PBL seminars increased facilitators' awareness of their behaviour and encouraged teachers to share their experiences with each other as they had already shared the experience with me. Analysis of the data, although presented through my interpretation, presented a broader perspective across a range of PBL teams than would have been achieved by

individual reflection. The convergence of approaches over the timescale of the study probably was influenced by the research. Although I did not deliberately attempt to manipulate the situation to meet the needs of the research, it is likely that there was a form of Hawthorne effect resulting from the increased qualitative evaluation of facilitation by the participants and myself.

Timescale

The study ran over three years from March 1998 to February 2001. Patton (1990) indicated that a minimum of 6 months study is needed to provide sufficient detail about the running of a educational programme. This timing also allowed the increasing experience of facilitators to be studied with new student PBL teams, with branch student teams and once again with new teams. The students perceived the Branch programme as the 'real thing', with the CFP viewed as a less important 'hoop' to be jumped through before 'coming home' (NBS Report, 1997). Study of both parts of the programme was therefore essential to the overall understanding of the programme. If the nature of PBL facilitation proved to be similar to Heron's (1989) model where groups became less dependant on their facilitator with time and experience of group work, facilitators would require the ability to switch from one facilitation mode to another when facilitating first and third year teams. The first cycle followed five facilitators and their CFP student teams. The second cycle studied fourteen facilitators in the Branch Programmes while the third cycle focused on seventeen facilitators, now with 2 years experience, working with teams of new students in the CFP. (Figure 4.1, Table 4.1)

I was interested in the development of facilitation skills and whether the skills differed according to the level of the student. The three cycles allowed me to follow the development of facilitators' skills across the PBL sessions in both CFP and Branch. Data from the three cycles helped me to decide if differences in the findings could be related to student level or facilitator experience or if neither of these had an influence.

Figure 4.1 Cycle Timescale

Validity in qualitative research can be defined as the extent to which the research findings represent reality (Field and Morse 1985); that the findings illuminate what they are intended to illuminate. The validity of qualitative data lies in the rigour of the research, the credibility of the researcher and the appreciation and understanding of qualitative methodology (Guba and Lincoln 1985). Denzin (1989) suggested that rigour and validity

could be achieved by different data collection methods. In addition to the range of qualitative methods outlined above, I had access to the School's evaluative data that was quantitative and collected for quality and audit purposes. I hoped that comparison of the findings and identification of similarities (if any) would enhance the validity of my research. Patton (1990) indicated that comparing the data obtained by different methods assists in determining the validity of the findings. As a further measure of validity, I planned to compare information from interviews with that obtained from the tape recordings and field notes. Bloor (1997) stated that while triangulation of methods assists in providing a well-rounded view of the situation, comparison of findings achieved by differing methods cannot not be used as a sole measure of validity. Different methods are often used for different purposes within the research. Furthermore, he argued that some inconsistency between data obtained by differing methods and at different points in time is only to be expected in qualitative studies. He indicated that changes in participants over time can also lead to distortions in results. One of the elements I examined was the effect of time and experience on the actions of the participants, therefore alterations or 'distortions' in the results from different parts of the study were expected.

An alternative method of validity checking for qualitative data is member verification or checking (Mason, 1996). This technique involves returning of analysed material and interpretations to participants for checking, in the hope that they recognise, understand and accept the researcher's descriptions and interpretations. Both Mason (1996) and Bloor (1997) suggested that this method also has drawbacks. Participants may not read the reports; they may not understand them or they may not want to accept the views

presented, especially if the report appears to criticise behaviours. The participants in the study were peers. It was therefore unlikely that I would produce a report that they did not understand. Any negative comments in the report would reflect as equally on me as PBL co-ordinator, as on the participants. If the facilitators chose not to read the reports, there was little I could do to make them. Despite his criticism of validity checks, Bloor (1997) stated that both combined data collection methods and member checking are closely related to validity and that the use of either or both strategies can only contribute to increased validity of the study.

Reflexivity

Qualitative researchers have long recognised that the researcher is central to the research. The research is constructed as a joint product of the participants, the researcher and their relationships. The collection, selection and interpretation of data by the researcher are set in a particular negotiated context. As the interpreter, I was required to find a balance between subjectivity and objectivity and between engagement with the actors and objectification. In the constructivist, interpretivist paradigm the investigator and the participants are linked interactively, as constructs can only be elicited and refined through interaction. While interpretation includes an element of intuitive guesswork, it also has to grasp intersubjective meanings and symbolise activities in an attempt to make the constructs explicit. Finlay (2001) indicated that because meanings are negotiated within particular social contexts, different researchers in the same setting will unfold different stories. The research process constitutes a construction of the social reality in which researchers both interact with the agents researched and, actively interpreting, continually

create images for themselves and for others: images which selectively highlight certain claims as to how conditions and processes can be understood (Alvesson and Skoldberg, 2000). However, describing or interpreting people's 'objective reality' is difficult if not impossible. The researcher influences the collection, selection and interpretation of the data. Reflexivity, self aware analysis of one's own influence on the research, is valuable in assisting readers to identify the stance adopted by the researcher and in inviting alternative interpretations. Reflexivity should form only one of the working methods within the research and should not dominate it. If taken too far there is a risk that it will slide into self-absorption and leave little room for the views of others. If the voice of the observer is too strong there is a risk that the voices of the participants will fail to be heard. If the voice is too weak the written research will take on the voice of other theorists rather than that of the researcher (Clandinin and Connelly, 1998:173). Findlay (2001) identified the problems associated with the 'muddy ambiguities' to be negotiated by researchers engaging in reflexivity, claiming that the process of engaging in reflexivity is always problematic. She identified six variants of reflexive activity, namely methodological accounting, introspection, hermeneutic reflection, intersubjective exploration, mutual collaboration and social critique. There is overlap between the variants, which are not mutually exclusive; researchers may employ more than one variants within their research. Alvesson and Skoldberg (2000) also report on reflexivity at several levels. In a constructivist approach there is something to construct, a constructing subject (the researcher) and a social context that constructs the researcher. Reflexivity, they claim, means paying attention to each of these elements without allowing any one to dominate the research.

Reflexivity is viewed as a method in its own right. Alvesson and Skoldberg (2000) refute the notion that reflexivity as a postmodernist method, claiming that this is too narrow a view and that reflexivity should be used from a wide base to avoid narcissism and reductionism. Two types of reflexivity are deployed in this study: methodological accounting (Kvale, 1996) and reflexive interpretation (Alvesson and Skoldberg, 2000). Methodological accounting was selected increase the validity of the research by making the research processes transparent by opening up details of the research story to the readers, inviting them to arrive at their own conclusions. Reflexive interpretation was used to work across the research data during analysis to point out levels within the research and to bring related aspects together in order to present a coherent picture to the reader.

Field Notes

Field notes are an important determinant of qualitative research. Sound research relies on the accurate observation and reporting of activities and interactions. Field notes should record what actually took place without interpretation, although the researcher's own feelings and insights can also be noted. Patton (1987) advised that field notes be typed up as soon as possible after being made. He suggested that, with practice, it would be possible to transcribe and think at the same time, permitting annotation of notes along with the transcription.

When I began to keep field notes, I expected that data from staff not involved with PBL would be hard to obtain. In practice, I began to receive comments from members of both

teaching and support staff almost as soon as I started the research. Initially I asked at the end of the observation 'Is it all right if I note that for my research?'. Through time colleagues began to preface remarks with 'Here's something for your wee orange book', a reference to the notebooks that accompanied me everywhere during the study. Initially I was surprised by the frequency of comments. Gradually I realised they were being made for one of two reasons. Pro-PBL colleagues raised issues, such as student non-attendance or perceived problems with the content of feedback, which they wanted me, as PBL co-ordinator rather than researcher, to deal with. Often these issues had been raised in the facilitator support group and should have been dealt with by the individual facilitator. By presenting the issue to me as a generic, rather than an individual problem, they avoided dealing with it. The other type of comment came from colleagues who were anti-PBL. These comments were negative, aimed at pointing out how much time PBL wasted and how the time could be more usefully spent on lectures. I quickly learned not to enter into an argument, simply saying, 'tell me more' and producing the current 'wee orange book'. I found it difficult to type and think as Patton suggested. My field notes remained in hand-written format with annotations in coloured ink. I made several copies, which were annotated and cross-referenced against the other data sources as my analysis developed, thus triangulating in analysis in addition to triangulation in data collection.

Data Collection

In order to understand the internal dynamics of the lived curriculum of PBL, the research required data collection methods that would provide a detailed description of the process in action. Such methods needed to take into account the variation in experience that typically occurred for different people even within the same programme. Audiotapes

alone would not provide sufficient data to meet the aims of the research. I wanted to contrast teachers expressed beliefs about PBL and their perceptions about how it ought to be facilitated, with what actually happened in the seminars. The audiotapes would provide information about the PBL seminars, but I needed other data collection methods to meet the aims. In keeping with Patton's description of a situationally responsive design and the concept of *bricolage*, (Levi-Strauss, 1966) a variety of methods was used to collect information. These included, in addition to the audiotapes, field notes, semi-structured interviews, focus group interviews and reflective diaries.

Sampling

In total eighteen facilitators participated in the study and were interviewed three times each. Denzin (1994) stated that sampling in a constructivist interpretivist design should be purposive in order to include information-rich cases who will provide illumination through high quality, detailed description of the situation being studied. Although random sampling increases the credibility of results through selection from a wide spectrum of the population, I believed that information richness was more important in increasing understanding of the nature of facilitation in PBL. I therefore followed Denzin's (1994) guidance for a purposive sample. In addition to the selected teachers, students as recipients of facilitation were included in the study.

For the first cycle of the research, I selected five colleagues who had diverse clinical and educational backgrounds, ages and teaching experience. Any common themes emerging from the study of this group of disparate people would be likely to be representative of facilitators in general. In all cycles, colleagues were chosen from each campus equally.

For the second cycle, I planned an intensity sample; participants who would be typical, but who would provide rich examples. I identified twelve people whom I thought might fit this specification. This group included programme and module leaders as I thought that their role within the School might lead them to have a stake in the success of PBL. Two had applied for early retirement, hoped to leave during the second cycle, and therefore declined to take part. Two colleagues approached me stating that they would like to take part, as they were interested in the workings of their PBL teams. I was reluctant to accept people who 'opted in' to the research. The literature (for example, Silverman, 1993, Denzin and Lincoln, 1994) gave cautions about data from participants who volunteer to contribute, warning that there is a risk of only a particular view being represented. As I was selecting an information-rich sample, I decided that people who expressed interest in PBL and the study were likely to provide detailed information. One had participated in the first cycle and appeared to be atypical, therefore I felt that he would be interesting to follow. The second indicated that she had found her first CFP team problematic and hoped that involvement in the study would provide increased insights.

Since PBL had been implemented, I had heard anecdotes that 'some facilitators are just in and out - the whole session's over in half an hour'. These anecdotes were reinforced by comments made by a team of students met during an Objective Structured Clinical Examination (OSCE). The students were in a cohort that had not been involved in the research. The gist of the comments was that PBL was a 'just sitting in a wee group talking about some daft subject' and 'a bloody waste of time'. Some investigation

allowed me to identify their facilitator. The name tallied with the anecdotal accounts from staff. In some trepidation I approached the facilitator and asked if she would participate in the research. Somewhat to my surprise, she agreed, saying ‘It’ll let you see that everything in your garden doesn’t smell of roses’. Bloor (1997) stated that the inclusion of contrary cases strengthens the validity of the research findings through discussion of cases that do not fit with the pattern of the others. Emboldened by my success I approached a colleague on the other campus about whom I had heard similar remarks. She also agreed to join the project. This gave a total of fourteen facilitators and their student teams in the second cycle. (Table 4.1)

Table 4.1 Participants by Cycle

Cycle One (5)	Cycle Two (14)	Cycle Three (16)
James	James	James
Meg	Meg	Meg
Gordon	—————→	Gordon
Angela	—————→	Angela
Jean	—————→	Jean
	Andrew	Andrew
	Ewan	Ewan
	Karen	Karen
	Gwen	—————
	Charlotte	Charlotte
	Agnes	Agnes
	Christine	Christine
	Lorna	Lorna
	Hilda	Hilda
	Lily	Lily
	Eileen	Eileen
	Graham	—————
		Mike

I had intended that the sample for the third cycle would comprise participants from the second cycle who had proved to be typical, information rich cases who would provide

data as they returned to work with year one students. To these would be added opportunistic participants who had been identified from fieldwork as providing particularly enlightening or contrary cases. In deciding this, I had not calculated the number of staff who would meet the criteria of experience of facilitating both CFP and Branch teams. By October 1999, the start of the third cycle, only two cohorts of students had reached the Branch programmes. Only twenty-nine lecturers had had experience with both CFP and Branch students and only twenty from the group would have a PBL team from the cycle three intake. Therefore, all the participants from cycle two were asked to continue into cycle three. However one withdrew due to absence related to ill-health and one, Gwen, refused to continue. Three of the first cycle participants joined cycle three along with a new member of teaching staff who had had experience of PBL in another institution giving sixteen participants for cycle three. (Table 4.1)

I was curious about Gwen's reasons for refusing to continue with the study. She was one of the most ardent PBL supporters within the School and was undertaking her own research into another aspect of PBL. She was vague when I asked why she did not want to continue. She said she was too busy, which I thought odd as the audiotaping was undertaken by the students. The only additional time needed was for interviews and the reflective diary. Gwen had already been interviewed once and had given me the first part of her diary. From various comments made over the next six months I concluded that she thought that I was getting too much 'glory' from the research and that I had been 'too many places' in connection with it. Although I had tried to work collaboratively, sharing findings and asking if the findings reflected the perceptions of my colleagues, Gwen felt I

portrayed the research as ‘mine’, rather than ‘ours’. She had expected more recognition for her part in it.

Gwen’s withdrawal from the study highlighted for me just how complex collaborative research really is. Savin-Baden (forthcoming) speculated as to whether being a collaborative researcher is idealised. She pointed out that in collaborative research, the challenge is for the researcher really to negotiate description and interpretation for participants and to reflect upon the experience for all those involved. At the point of Gwen’s withdrawal from the study, I felt that I *had* shared the results. However, as I was behind schedule with the analysis, there was, in fact, relatively little new material to share. Colleagues may have thought that I was withholding information. I was reluctant to share the findings *en mass* until I had what I considered a complete picture. In presentations I referred to ‘our’ research and acknowledged the contribution of my colleagues and the students, without whom there would have been no study. However, I could not rid myself of the feeling, perhaps selfishly, that I had done the setting up, the transcribing and the interpretation. My feelings must have shown, despite my efforts to be truly collaborative.

At the start of the research I was rigorous in meeting with students, providing them with written and oral information about the study, informing them of their rights as research participants and obtaining consent. However, I gave little thought to the students during the first cycle of the research, regarding them almost as secondary to its aims, necessary to the process rather than collaborators in it. This attitude expressed much about my own

concepts of learning and teaching at the time. I was ready to argue for the use of PBL as a student-centred approach that would empower students and allow them to take responsibility for their own learning, yet I was not willing to value their contribution to the research. I had a steep learning curve as a facilitator. As the research progressed, I realised that it was impossible for me to discuss facilitator approaches without reference to the students.

Audio-Taping

I asked my colleagues and their students to audiotape their PBL sessions. The presence of an 'outsider' directly observing the session might have been inhibiting for both facilitators and students, leading to behaviour which differed from the norm. Audio-taping, assuming good quality recording, provided a record of what actually took place during the PBL sessions. Polit and Hunglar (1997) claimed that there may be some initial self-consciousness and reluctance to talk while the tape is running, but that this is usually overcome as the tape is forgotten. With the previously noted exception, students stated that they were willing to be audio-taped on condition that they did not have to listen to the recordings.

My colleagues were diligent in producing tapes of their PBL sessions. After the first cycle, I left the choice of which PBL session to tape to the facilitators and their teams. My only request was to provide tapes of a 'set' of PBL sessions (introduction, review and feedback) for each module. This allowed me to monitor the progress of facilitators in each type of PBL seminar across the programme. I was fortunate in that tapes of only

three individual sessions in total were unusable. About half of the tapes were recorded by students. Two teams commented that they had deleted material from the tapes on one occasion each. They stated that the discussion had strayed from the PBL topic and that they felt confidentiality would have been breached as the deleted material contained reference to peers in other teams. Some material was lost at the point where tapes ran out. Only rarely did this affect the sense of the recording. Usually the lack of recording had been noticed quickly and a new tape started. The taping had some influence on the process as the end of the tape was frequently used as a convenient point to have a break.

Interviews

In addition to the tapes of the PBL sessions, I wanted to gain the perceptions of participants, in particular the espoused theories of facilitators, with respect to PBL. Interviews are occasionally presented as the mainstay of qualitative research. Both Dingwall (1997) and Bryman (2001) suggested that interviews provide a useful data gathering tool as constraints of work and home life can prevent prolonged observation. However, the status of data obtained by interviews is open to conjecture. Interviews may be regarded as an exercise in fronting by the interviewee. Interviewees will disclose what they want to disclose and from their own position. Melia (1997) contended that, if this is indeed the case, there is little point in continuing to collect this type of data. She declared that the interviewer needed to go beyond the story and to try to gain insight into a more complex set of ideas. Dingwall (1997:55) raised the concept of the interview as an artefact, the joint accomplishment of the interviewer and interviewee. Historically the quality of data obtained from interviews has been seen as being largely dependent on the

interviewer's skills. Holstein and Gubrium (1997) echoed this position stating that the interviewee is part of the interview process and the construction of knowledge, therefore 'good' interview skills are perhaps not as important as some writers would believe them to be.

In keeping with the ethnographic elements of the research design I chose a semi-structured style of interview. This format allowed me to ask the about the topics I wanted information about, while offering the interviewees a great deal of leeway in their replies. I could also raise and develop issues that arose during the interview. Facilitators were interviewed individually, once in the first or second cycle and again after the completion of the third cycle. I prepared interview guides (Appendix 7) that identified topics to explore but left the actual format and direction of the questions open and myself free to explore and build on the response to the answers. The first interview centred on the role of the facilitator and how this was achieved in action. The second interview combined questions about if / how the interviewees thought that they had changed with respect to facilitation with checking of my findings.

My attitude to the interviews differed from that of Dingwall (1997) and Bryman (2001). My work was in the field. Finding mutually convenient times for interviews was the issue. Unlike many researchers, I was working with a group of participants who were well informed about research, its processes and purposes. In many ways this made life easier. Colleagues were aware of the need to collect data and thus made themselves available for interview. In keeping with the literature, the interviewees tended to report

themselves in a favourable light, as competent members of the group being studied. Participants presented themselves as proficient, if novice, facilitators in the early interviews, moving towards experienced facilitators in the later interviews. This was unsurprising. People are unlikely to present themselves as being unable to do their jobs. Only four facilitators spoke of their effect on the students. The others tended to distance themselves from difficulties and challenges within their teams, ascribing these to the students or the PBL material. Several facilitators attempted to use the interviews as trouble-shooting sessions, raising issues that they hoped I would solve. Initially I tried to offer advice at the end of the interview. Later I dealt with these questions by stating that we could discuss them at the next facilitators' support group.

For at least a year, and probably longer, after the implementation of PBL, I felt very defensive. With a third of the staff who not only did not want to be involved in PBL but were actively antagonist to it, I found myself having to defend PBL on numerous occasions, from coffee room conversations to whole School presentations. As I felt I was constantly fighting, the last thing I wanted was negative comment from the people I thought were on the same side. Remarks which indicated that there were difficulties with PBL, were remarks I did not want to hear, let alone address. This defensive attitude was probably apparent in the first set of interviews through my responses and non-verbal communication. Interviewees who tried to talk about perceived difficulties would pick up signals that this was not an area that I wanted to pursue. This ostrich attitude began to wane as the results from the quality assurance mechanism of the School showed that students rated PBL highly. In the increasing consumerist climate of higher education,

customer satisfaction carried considerable weight. The positive response gave me the confidence to ignore the doubters and to start looking at how difficulties with the PBL strategy could be overcome. My interview skills improved with time and practice although I was not aware of this until a colleague pointed it out during a shared teaching session. By the second round of interviews I was better prepared to pursue interviewee comments and ready to listen and accept critical comment.

Facilitator Diaries

In the first cycle I identified that the use of audiotapes could not provide some information, for example the arrangement of furniture, which might influence the PBL process. Facilitators in the second and third cycles, therefore, were asked to keep diaries recording these details and any other factors that might affect the running of the PBL sessions. Reflection on the session was also requested. This was not a successful method. The amount of data recorded in the diaries was patchy and descriptive rather than reflective. Most participants kept notes of the PBL sessions at the start of the study, but ceased to do so as they became more familiar with PBL.

Focus Groups

Initially I had envisaged that students would be involved in the research as passive participants rather than active collaborators. As the research progressed I realised that the students' view was an integral part of the study. I initially became aware of the value of the student contribution with my own first cycle team who, as trust developed between us, gradually began to offer comment on my facilitative actions. When I received audiotapes from other facilitators I noticed that several other teams had offered comments

on their experience of the PBL seminars, either in response to a question by the facilitator or spontaneously. As part of gaining informed consent, I had promised to disseminate the findings to students. I organised two sessions for this at the beginning of the second cycle. While agreeing generally with the findings, the students made several comments that shed new light on the in-seminar process. I was surprised when several students contacted me over the following days to give further comments. By choosing to listen to the research findings and articulating them with their personal experiences, the students shifted from being almost incidental to the research to becoming almost collaborators.

The perceptions of the people being studied are an important factor in the research. The student voice had to be heard more strongly as a part of the facilitators' experience. I therefore set up focus groups as a method of allowing the student voice to be present in the findings. Focus groups provide insight into how individuals respond as a group to a particular situation. This aspect fitted well with the small group nature of PBL. Krueger (1996), Bryman (2001) and Bloor *et al* (2001), while advocating the use of focus groups, all cautioned that there are potential difficulties related to group construction, the length of time required to transcribe tapes from groups and analysis. Krueger also indicated that the moderator has 'less control' in a focus group than in a single interview situation.

The main difficulty in organising the focus groups was attendance. The response to a request for participants was not remarkable, however it was sufficient to create one group on each campus; nine members in Dunagoil and ten in Ascog from a class of 195 students. In the second round the focus groups were created by asking each PBL team to

nominate one or two members to take part. This created another two groups, one in Dunagoil with seven members and one in Ascog with nine members from a class of 183 students. The Dunagoil groups were moderated by a colleague /participant who had used focus groups in her own research. I moderated the Ascog groups with another colleague/participant acting as assistant moderator. Krueger (1996) and Bloor et al (2001) suggested that there may be a problem if group members know each other as they may refer to shared experiences. I saw this as a benefit rather than a problem. Discussion of shared experiences of PBL would help provide new insights. A known moderator was also highlighted as posing a potential challenge as 'they may be associated with a particular topic' (Krueger 1996:18). Again I did not perceive this as a difficulty. All three of us were closely linked with PBL and it was transparent that the group topic would be PBL. Both groups were given a synopsis of the findings at the beginning of the session and asked to what extent they agreed / disagreed with them. The main difference between the focus groups and PBL teams lay in the absence of pressure on the students to reach a conclusion. The resulting tapes showed the same patterns of silences, several conversations running at one time, unfinished sentences and requests for clarification as the PBL seminars.

In addition to the focus groups, I found myself involved in several conversations about PBL with students in cafeterias, ward areas and libraries. I asked for permission to use these comments. However, I often had to rely on memory to create notes from what had been said. Data obtained from these conversations and the focus groups provided an insightful counterbalance to material from facilitator interviews. In the findings chapters

the student comments, in common with the facilitator quotes, are reproduced as close to verbatim as is consistent with understanding, with 'translation' as required, to retain the flavour of the sentiments expressed and to reflect the diversity of the nursing student cohort.

As recipients of PBL, students had a vital role in demonstrating the response to the behaviour of their respective facilitators. Focus groups allowed the students to play an active collaborative role in the research. Communication of results to students through the groups permitted member checking with the students and obtained new insights from the student perspective. The student focus groups were used as an adjunct to the other data collection methods and provided an additional interpretive aid in my analysis. The willingness and the ability of the students to comment critically on the PBL process took me unawares and challenged my belief in myself as a student-centred teacher. I had had some doubts that seeking the students' opinion would create a forum for complaints about PBL. These proved to be unfounded. The insightfulness shown in many of the comments reinforced the student-centred nature of PBL for me and provided a focus for reflection on my personal practice as a facilitator.

Data Analysis and Interpretation

My colleagues kept to the agreed timescales, recording PBL sessions as planned over the three cycles. Although I managed the first cycle within the parameters I had set, I found that my workload and factors in my personal life meant that I was unable to keep abreast of the transcribing and the individual interviews in the second and third cycles. This led to a delay in producing findings to feed back to colleagues. I tried to overcome this by

listening to the tapes and attempting to summarise what I thought was happening. This was not effective. The 'findings' only reflected what was happening at one point in time. Most of my colleagues were as aware of this as I was. It was not until I began to work with full transcripts and audiotapes, examining what was happening over time and making cross-facilitator comparisons that I started to construct a picture of what was happening.

In the planning of research I had identified content analysis as the preferred method, using the techniques described by Strauss and Corbin (1990). This technique involved searching copies of the transcripts of the PBL sessions and interviews for recurring themes which were then categorised. This technique produced categories which reflected the content of the PBL sessions rather than a picture of what actually was happening within the PBL seminars. It was a useful exercise in that it demonstrated that the PBL material was, in fact, triggering the intended learning but it revealed no insights into how this was achieved. A second analysis searching for strategies, such as questioning and summarising, used by facilitators simply yielded another set of categories. With hindsight I recognised that, even with a pragmatic and flexible design, neither method met the needs of the research nor fitted comfortably with the overall ethos of the research. The emphasis on searching for themes and categorisation lost the voices and the stories of the participants, reducing the data to boxes that contributed little to my understanding of facilitation. A new position on analysis was needed. My readings on the value of interviews provided some guidance. There was a strong indication that researchers needed to get beyond the words and *interpret* the experience of the participants. My

search for assistance in interpreting the data led me to the writings of Wolcott (1994) and Denzin (1989, 1994).

Wolcott (1994) and Denzin and Lincoln (1994) each pointed out that although there are some guidelines for interpretivist analysis, the researcher's analytical thought processes cannot be replicated and there are few straightforward tools that check the validity of qualitative data. Alvesson and Sköldberg (2000: 248) stated that interpretation implies that there are no self-evident, simple or unambiguous rules or procedures while Patton (1990) claimed that the person who has lived with and reflected on the data is in 'as good a position as anyone' to interpret the data. Encouraged by this statement, as I was indeed living with the data, I began a third attempt to analyse the material.

I adapted the methods described by Wolcott (1994) and Stake (1995) and began the analysis by building cases for each of the facilitators. Initially I wrote a short biography that included the facilitator's clinical background, the type of nurse teacher preparation programme undertaken and the length of time in nurse education. The biography was added to the previously undertaken analysis of interventions. Each facilitator's tape and transcripts were listened to, read and interpretivist comments made. In a further analysis the tapes were listened to in conjunction with the interpretive comments, the facilitator's reflective diaries, interview transcripts and biographies. In this analysis I tried to identify if the facilitators' espoused conceptions matched their theories-in-use or whether there was incongruence (Argyris and Schön, 1974).

I found that during the analysis I was working more with the tapes than the transcripts as the intent of the dialogue was more apparent from the audiotapes than from the written word. As I became more adept and more familiar with the analysis process, the audiotapes became my primary data source. Reliance on the audiotapes as the sole focus for the analysis was not an option I wanted to take as anomalies between facilitator and student agendas were often more apparent in transcripts. The questions asked by facilitators often seemed reasonable to me, if not to the students, because, as a facilitator myself, I knew the expected outcomes for the sessions and hence could identify where the questions were leading. Using only the audiotapes could have led to my identifying too closely with the facilitators and, for example, missing the effect of poorly-timed or badly-phrased questions on the PBL process. Transcripts from the sessions, the individual and focus group interviews, reflective diaries and field notes were cross-referenced in the account to support my interpretation. Finally I compared the interpretive accounts to identify the similarities and differences between the facilitators.

I found the progress from annotating field notes and transcripts, to building a coherent understanding of a case and making comparisons to be rewarding. I was reassured by descriptions in the literature of the need to shuttle back and forwards across the data during the interpretive process, as I found that I was constantly moving within the data. During this process I felt that I had finally produced new insights that could usefully be applied to facilitation.

Conversational Analysis

From the first transcription onwards I had noted that voice tone, pauses, spacing and emphasis on words could alter meanings and hence the effect on the students and the progress of the PBL sessions. Statements that looked insulting or autocratic in typescript were robbed of these characteristics by being said in a humorous or wry tone of voice. Statements that seemed pleasant on paper took on a subtler meaning when matched with a sarcastic inflection. Although initially I had little knowledge of conversational analysis methods, I had attempted to note the tone of voice and to indicate emphasis, pauses, laughter and so forth when transcribing the audiotapes. When I read further literature on conversational analysis, I realised that I had 're-invented the wheel' by devising my own set of symbols. Conversational analysis originated from the work of Garfinkle (1967) and subsequently Sacks (1984). As it deals with naturally occurring conversation it applied to the audiotapes from the PBL seminars, but not to the audiotapes of conversations that I, as the researcher, had initiated. It is concerned with the data and, as Sacks pointed out, highlights what is there for anyone to hear. Conversational analysis with its use of coding and categories is sometimes associated with a positivist approach. However, as conversations provide insights into how people construct a shared understanding, conversation had implications for the research. The focus group interviews with the students raised the importance of non-verbal cues in the PBL process and reinforced my thinking on the importance of the nature of the dialogue in PBL.

The Status of the Data

Combining of methods is sometimes referred to as methodological triangulation. Triangulation was claimed to be the social science equivalent of replication in natural

science research thus increasing validity (Denzin, 1989). Bloor (1997) disputed this, arguing that different methods have different strengths, suitabilities and degrees of contextualisation. Data obtained from a highly suitable method cannot be discounted because it does not match data obtained by a less suitable method. My reason for using a combination of methods was not to site the data by narrowing the focus, but to deepen and enrich the understanding of the topic by considering a range of perspectives.

I began by treating all data as being of equal value regardless of how it had been gathered. As my analysis progressed I realised that the audiotapes, with their transcriptions, provided the strongest data, capturing the essence of the PBL seminars. As the research progressed, the students became accustomed to the tape-recorder and spoke freely during the recordings. As the students lost inhibitions about being audiotaped, so did the facilitators. The audiotapes had face validity as they were similar to my own experience as a facilitator. One of my sons (a student in another HEI), who transcribed some of the tapes, commented on the amount of banter and joking in the PBL sessions. He thought that the students should have been more serious 'particularly as they were being taped'. This reinforced my own thoughts that the data from the audiotapes was representative. The audiotapes from the PBL sessions, with their transcripts, provided the foundation for the interpretation with data from the other sources used as adjuncts to enhance the interpretation by providing support or highlighting contrary cases. Data from the focus group interviews supported the audiotapes. Comments from the focus groups and my informal conversations matched data from the tapes and provided insights into aspects of facilitation that were not apparent from the tapes and that I otherwise

would have missed, for example, the effect of non-verbal communication on the PBL process. Students also commented on the actions of facilitators who were not part of the research, providing valuable cross-matching and checking of my interpretation of the findings.

The data from interviews with colleagues provided some insight into teachers' espoused concepts. It seemed to me that the desire to present oneself well was particularly strong when the interviewer was a colleague: someone who will continue to be in the setting after the interview. Even although confidentiality is rigorously maintained, that person will still know what has been disclosed. Some of the data from the interview seemed to be simply reiterating the concepts about facilitation from the training days. This may have been due to the concepts being new and therefore less firmly fixed or it may have been because colleagues thought that this was what I wanted them to say. This trait was less marked in the second round of interviews. The experience of facilitation may have allowed participants to fit the concept into their existing cognitive structures, making the expressed beliefs closer to the espoused beliefs or because I was more willing to listen to a range of concepts about PBL.

The reflective diaries added little to the data from other sources. The 'reflective' accounts of PBL seminars provided little more than a description of what the students had done; the discussion around the trigger, the objectives formulated and the presentation style. There was little account of facilitators' thoughts on sessions that had gone well, or not, and what might have contributed to this. No-one described their actions as a

facilitator or the impact of these on the PBL process. Apart from a single request to ask if people who had kept them would like to give them to me, I did not pursue diary keeping.

The status of the data from my field notes decreased over time. At the start of the study I noted every mention of PBL in any setting where it occurred, within the School and in meetings with staff from other departments and faculties. As the study progressed, I only noted observations that struck me as new. Up to this point, about three-quarters of the way through the study, the field notes provided a good data source. Later when I had begun to identify findings and the approaches through analysis, I unwittingly developed selective perception and only noted comments and events that supported or refuted the findings. I was satisfied that I was being unbiased as I recorded both sides. However, on reviewing field notes from the end of the study, I noticed that I had not recorded any observations that did not relate to the findings. Thinking back I cannot recall any new topics, but I consider that I have probably missed pertinent observations because of my preoccupation with the findings.

Conclusion

The design of the research linking ethnographic data collection methods with a constructivist interpretivist approach met the needs of the topic. Although the design provided the initial structure which provided the planning and scheduling for sampling, data collection and analysis, it was sufficiently flexible in order to respond to the changes and challenges that arose during the study. The recognition of the need for flexibility and responsiveness to the research situation before the commencement of the study proved to be a strength of the design. Lack of flexibility in the design would have led to the loss of

data with resultant implications for the findings. In particular, a rigid pre-determined design would not have permitted the addition of an additional data collection method to gather the students' perspectives. My expertise as a qualitative researcher developed over the four years of study as I gained understanding and become more comfortable with the research methods. Pre-determined fixed strategies for interviewing and field note collection would not have provide the opportunity for me to practise new skills in interviewing and would have failed to generate my increased confidence with unstructured interviews. Unyielding adherence to the constructive interpretivist framework for the data analysis would have produced a set of categories for facilitation which, while derived from the data, would not have reflected the diversity of and complexity of the learning or teaching situation.

The following chapter exemplifies the interpretive analysis method as I applied it. I have presented data from a single case to illustrate the use of the method *in situ* to assist the reader in understanding how I reached the findings presented in Chapters 6 - 10.

Chapter Five: Analysing Interpretively

**SOMETHING ELSE IS ALIVE
BESIDE THE CLOCK'S LONELINESS
AND THIS BLANK PAGE WHERE MY FINGERS MOVE**

*The Thought Fox
Ted Hughes 1962*

Introduction

Chapter Four introduced interpretive analysis as the method used to analyse the data. This chapter presents an example of my use of interpretive analysis in constructing the account of the lived experience of becoming a PBL facilitator. Denzin (1998) advised that grounded theory was a suitable method of analysis for a constructivist interpretivist approach. However, I chose to analyse the data interpretively in order to preserve the voices of the participants and their students in the written presentation of experiences. These individual articulations would have been lost in the category formation associated with grounded theory. The chapter bridges the research methodology and the presentation of findings in order to present the process by which I derived the findings from the raw data. Therefore, although technically it forms part of the methodology, it is also the beginning of the presentation of findings.

Analysing Interpretively

As discussed in Chapter Four, interpretation implies that the researcher's analytical thought processes cannot be replicated. There are no self-evident guidelines or simple, unambiguous rules for undertaking interpretive analysis (Wolcott, 1994; Denzin and Lincoln, 1994; Alvesson and Sköldberg, 2000:248). I felt that I fulfilled Patton's criteria of living with and reflecting on the data and was in 'as good a position as anyone' to interpret the data (Patton, 1987:145). Adapting the interpretive methods described by Wolcott (1994) and Stake (1995), I began the analysis by creating cases. For each facilitator I wrote a short biography that included clinical background, the nurse teacher preparation programme undertaken and the length of time in nurse education. Lieblich *et al* (1998) recommended that the data should be read (listened to) until a pattern emerges. Each facilitator's tapes and transcripts were listened to, read and interpretive comments made several times. Next, the tapes were listened to again, this time in conjunction with the

interpretive comments, the facilitator's reflective diaries, interview transcripts and biographies. This enabled triangulation within the analysis. Patterns were compared across the cases. Following this phase of the analysis I discerned if the facilitators' espoused conceptions matched their theories-in-use or whether there was incongruence.

My experience of interpretive analysis, in some ways, seemed akin to creative writing or problem-solving, where the individual's thoughts come together in a way that is difficult to explain to oneself and even more difficult to set down for others. Some of my interpretative ability was made possible by my tacit knowledge of the organisation and the people acquired both prior to and during the research. Although undertaken in a series of logical stages, the interpretive process also included an intuitive element. 'Intuitive' in this context relates to learning acquired through experience over a period of time, not to instinct or 'gut feeling'. Lieblich *et al* (1998:17) suggested that, in interpretive analysis, belief in one's own ability to detect meaning led to the text 'speaking to you'. In *The Thought Fox* Hughes (1962) likens these thought processes to the stealthy movement of a fox across snow, 'deeper within darkness', at first moving tentatively in the shadows, barely seen, then gradually becoming bolder, showing more of its shape until 'it enters the dark hole of the head' and 'the page is printed'. For me, the process of interpretive analysis developed in a similar manner. Tentative outlines of what was happening within the research context gradually became more defined as, with increasing familiarity and triangulation, the data were built up into the layers that constructed the final picture of the participants' lived experience. Unlike the data collection and my earlier attempts at analysis, the interpretive experience was personal and difficult to describe; drawing not only on the data, my knowledge of the research context and the participants but also on reflexive awareness of how I had acquired that knowledge and how my own experiences as facilitator and researcher had influenced it.

I have used the experience of one facilitator, Gordon, to explain the interpretive process. This example outlines Gordon's transition from his initial approach as a new facilitator to his approach eighteen months later. The data used to illustrate the interpretive analytical process are taken from two of Gordon's PBL sessions, one from the first cycle and one from the third cycle. The PBL trigger is the same; the student teams are different. Sections of data from each cycle are presented together with my interpretive comments. The interpretation is explained using data from interviews with Gordon to support and enhance the interpretation.

Gordon

Gordon was a teacher with the mental health branch team. He related how he came into nursing 'by accident', having taken a nursing auxiliary position in a local psychiatric hospital as a temporary measure on leaving school. The work was intended to provide some income while he considered what to do. The charge nurse, recognising his aptitude for working with people with mental health problems, encouraged him to enrol in a course leading to dual registration as a Registered Mental Nurse / Registered General Nurse. Some twenty years later he was still involved with mental health nursing. From being a charge nurse in an acute psychiatric ward, Gordon had undertaken the clinical nurse teacher's course, followed by a Master's degree in Education. The final step, a Diploma course for Nurse Teachers, was completed five years before the merger with the University. Tall, dark and handsome, with a highly developed sense of humour, Gordon was popular with staff and students alike. He was interested in the concept of PBL, believing that it had similarities with counselling, in that it encouraged individuals to identify issues pertinent to themselves and to seek workable solutions to these issues.

Food for Thought

The scenario centred on John McDonald, a 57 year old man about to be discharged home following a stay in a psychiatric assessment unit for investigation of weight loss linked to depression. The PBL trigger comprised a Doctor's discharge summary (Figures 5.1, 5.2).

<p>MODULE 3/4</p> <p>PBL TWO</p> <p>FOOD AND THOUGHT</p> <p>Trigger</p> <p>Discharge summary for Mr John McDonald</p> <p>Situation</p> <p>Mr McDonald has been referred to the community nursing team where you are on placement. You are about to make the first visit to him with your preceptor.</p> <p>Prior to visiting Mr McDonald your preceptor asks you to consider ways in which he can be encouraged to maintain his independence and well-being after his discharge.</p>
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Figure 5.1 Situation Given to Students

TAYMOUTH HEALTHCARE NHS TRUST

*Re Mr John McDonald
Farrier's Cottage
By Aberuthven*

This 57 year old gentleman was admitted to the medical unit 2/5/92 ago at his GP's request with a chest infection following a bout of influenza. He gives a 6 month history of generally 'feeling low', loss of appetite and insomnia. Rheumatoid Arthritis diagnosed at age 52. He was widowed a year ago. He works in the oil industry but is currently unemployed.

O/a unkempt, unshaven, thin, skin and hair dry and brittle. BMI - around 12 kg underweight. Reluctant to talk and express thoughts or feelings.

There has been some improvement in his appearance since admission. Nursing staff report satisfactory food intake - he has gained 0.5kg in the past 2 weeks, but he remains reluctant to express thoughts or feelings.

Following discussion with Dr MacGrae, consultant physician, it was agreed that Mr McDonald would be best treated by the community in his own home, despite its rural location and primitive facilities (septic tank).

Discharge Home

AJ Crohen, STW

Figure 5.2 Trigger

The excerpts presented for analysis were taken from the introductory sessions with each team.

My interpretation is given in Italics.

Introduction to session

Cycle One	Cycle Three
<p>Gordon: OK Module 3 - it's your first scenario - this one's based on nutrition and mental health.</p> <p><i>The focus of the scenario was intended to emerge as the students engaged with the trigger. By giving the students these two topics, Gordon was already beginning to direct the students towards his agenda for the sessions.</i></p> <p>Gordon: Once you've read that I'll let you see the doctor's letter</p> <p><i>Although Gordon had told the students the topics that the PBL was intended to trigger, he withheld part of the trigger material that would have assisted the students to identify at least one of the topics for themselves. His use of 'I'll let' conveyed that he, as teacher, had control of the material.</i></p> <p>(paper shuffling noises, 15 seconds)</p> <p>Gordon: does anyone have a septic tank in the house?</p> <p><i>Gordon allowed only a short time for the students to read the trigger before intervening. He identified a term, that potentially was unfamiliar to the students, had little influence on the problem, other than to indicate a degree of remoteness of the client's cottage.</i></p> <p>Garth: obviously not, because I don't know what it is</p> <p>Gordon: well I'll not tell you, you'll have to find out for yourselves No-one know at all?</p> <p><i>Leaving the question unanswered suggested that the septic tank was more relevant than, in fact, it was.</i></p>	<p>Gordon: have a look at the trigger and see what it's about...</p> <p>... there's something on the other side as well ... a discharge summary</p> <p><i>All material was given out, nothing was kept back by the facilitator</i></p> <p>Gordon: This is obviously someone who's in hospital and is going to be discharged home into the care of the community health team</p> <p><i>Factual résumé of the trigger. No additions or prompts towards a facilitator's agenda. No misleading statements about septic tanks.</i></p> <p>(45 seconds of silence)</p> <p>Gillian: what this?BMI?</p> <p>Gordon: BMI? You don't know what that is? Dennaiz?</p> <p><i>Gordon was alert to the students' body language, noticing that another student knew the answer. The student (Dennaiz) responded to another student's question.</i></p> <p>Dennaiz: Body Mass Index</p> <p>Gordon: Body Mass Index, that's right</p> <p>Ruth: What I don't understand, is that 'he was admitted to the geriatric assessment unit two stroke fifty-two ago.</p> <p>Emily: That's two weeks - two out of fifty-two</p> <p><i>Again a student's question was answered by another student without reference to Gordon.</i></p>

In the first cycle Gordon was in control of the session. He issued the scenario, but withheld the actual trigger (the SHO's letter), which had been devised to stimulate the students to think about Mr McDonald's needs on discharge. By withholding the trigger material, Gordon made it difficult for the team to make informed decisions about potential interventions. It also allowed him to identify the topics that he thought the students should cover, namely nutrition and mental health. He also introduced a 'red herring' by drawing the students' attention to the septic tank and then refusing to explain its relevance. Controlling the material in this manner permitted the facilitator to provide further information at a point in the discussion where *he* felt that it was relevant. At this stage the students would be engaged with the agenda that the facilitator had initiated and therefore would be less likely to develop their own topics. Student-identified topics potentially might be areas in which Gordon had little expertise. This could be threatening if it interfered with Gordon's perception of himself as an expert in his subject.

In the third cycle, Gordon issued all of the material. His introduction to the session was factual. He did not give any suggestions as to the topics to be studied. The first intervention following the issue of the trigger came from the students, who sought answers from each other, not only from Gordon. The students began to clarify terminology and to develop shared understanding of the trigger before beginning to identify learning issues. Gordon allowed this to happen without interrupting or taking over the discussion.

Identification of learning issues

Cycle One	Cycle Three
<p>Kirsty: he could be depressed - he doesn't feel like going shopping and can't be bothered to get the bus to go into town to get the food - or whatever ...</p> <p>Gordon: right. He just can't be bothered to eat properly.</p> <p><i>Although Gordon raised the topic of mental health at the start of the session, he does not encourage the student to develop depression as an issue at this point in the session.</i></p> <p>Louisa: no social contact in the area, no social contact</p> <p>Gordon: OK the other thing you mentioned was his rheumatoid arthritis ..</p> <p><i>The issue of the potential for loneliness and a possible link to depression was ignored and an issue not raised by the students was introduced</i></p> <p>Gordon: What are the implications of that ?</p> <p><i>Directive question following on immediately from an issue chosen by the facilitator</i></p> <p>Marion: movement</p> <p>Gordon: restricted movement, pain</p> <p><i>Expansion of student's response to include additional aspect not raised by student</i></p> <p>Gordon: So what do you think an ideal dietary intake would be for someone like this ?</p>	<p>Emily: he's depressed</p> <p>Gordon: Where did you get that from?</p> <p>Ruth: loss of appetite, reluctant to express his thoughts and feelings and he's been widowed recently.</p> <p><i>The topic of depression was accepted and the students were allowed to discuss it without being diverted to other issues.</i></p> <p>Emily: unkempt, unshaven, just all the symptoms there.</p> <p><i>Emily followed on from Ruth's lead why she thought Mr. McDonald was depressed</i></p> <p>Ruth: reluctant to talk, insomnia</p> <p>Gordon: So you would see these as indications of depression, rather than anything other? ... do you want to rule out anything else?</p> <p><i>Prompt that there may be other issues with the client, without telling the team what they were or what they should do</i></p> <p>Gillian: Well, he's being discharged... so he's ... the medical history ... he's not been diagnosed or anything</p> <p>Frances: There are physiological symptoms aren't there ... and issues, em, lack of appetite and insomnia</p> <p>Gordon: That's right</p>

Cycle One	Cycle Three
<p><i>Having directed the team into discussing depression and the possible reasons for Mr McDonald's depression, Gordon once again switched the agenda. Rather than continue with depression and encourage the team to explore links between depression and weight loss and possibly nursing interventions to deal with these, Gordon reverted to the topic of nutrition</i></p>	<p><i>Gave encouragement without turning the discussion to another topic</i></p> <p>Emily: The other thing would be, more obviously, his wife's just died. You don't know how much his wife... .. maybe he's just not used to cooking for himself. His wife structured that. He's got the problems - his structure's fallen apart.</p> <p>Frances: he's not looking after himself really. It's not just the food.</p> <p>Gillian: food, hygiene and all that. Maybe his wife did that too, you know told him when to get his hair cut.</p> <p><i>Students build up dialogue between themselves without intervention from the facilitator</i></p> <p>Gordon: So, so far you've picked out all these symptoms that you might put down to depression, but you've picked up the fact that he's been widowed a year ago.</p> <p><i>Reinforcement of issues that students have raised and verifying their conclusion that the signs that were indicative of depression could also be attributed to bereavement.</i></p>

Although in the first cycle, Gordon had identified nutrition and mental health as topics that students should focus on, he ignored the suggestion that the client might have been depressed and refocused the discussion on nutrition. In interview, Gordon stated that he did not think that the trigger indicated that the patient was clinically depressed and therefore he discouraged students from pursuing the topic. The students made a second attempt to raise depression as an issue for Mr McDonald, and hence a learning issue for them, but again they were returned to nutritional problems. The discussion continued, covering dehydration, physical reasons for not eating for

example, the condition of the client's mouth, dentures, financial constraints, lack of equipment, and transport to shops. Towards the end of this section the students become totally engrossed in the discussion and for the first time began to break in over each other, rather than waiting for a comment from Gordon, only to be quickly interrupted. A pattern of alternate facilitator's comment to student's comment was built up. The facilitator continued to direct the content of the session. The students did not enter into dialogue with each other, only with the facilitator. This pattern continued until Gordon decided that the end of the session had been reached.

In cycle three when the issue of the client's being depressed was raised, the students were permitted to proceed with the discussion. However, Gordon asked open questions designed to encourage the students to consider reasons other than clinical depression for Mr McDonald's behaviour and symptoms. Discussion developed around causes of clinical depression compared with reactions to bereavement. Again students were able to develop dialogue, which led them to the conclusion that Gordon had tried to direct the first cycle students towards, namely that the client probably was not clinically depressed. Although Gordon did add some comments, he did not attempt to direct the conversation, nor did the pattern of facilitator comment: student comment, which characterised the first cycle, develop. Towards the end of the session, Gordon asked the students about their experience with patients, in particular about the amount of time spent trying to explore issues beyond physical care in an attempt to link the PBL material with practice.

Closure

Cycle One	Cycle Three
<p>Gordon: nutrition.... and when you're looking at rheumatoid arthritis, cataracts and depression look at it with a view to nutrition and mobility and independence - make sure these issues are addressed.</p> <p><i>The students were told what the facilitator thought was important and what he wanted them to cover</i></p> <p>So how do you want to do this ? Do you want to do it individually or do you want to do it as in the past ?</p> <p><i>Although the students were asked how they wanted to present they were immediately constrained to two options, chosen by Gordon</i></p> <p>Louisa: better individually</p> <p>Gordon: you want to do it individually ?</p> <p><i>Gordon's voice tone suggested that he did not think that this was the better option</i></p> <p>Louisa: well its easier - we're all split up - we've all got empty time - if we need it</p> <p><i>On this issue, which had time and effort implications for students, the students were less willing to follow the facilitator's suggestions</i></p> <p>Gordon: do you wantas individuals do you want to look at one component of it, because there's an awful lot to cover?</p> <p><i>Gordon continued to try to persuade the students to present as he wanted. However the students refused to be persuaded</i></p>	<p>Gillian: Is that it, is there anything else anyone thinks we need to look at ?</p> <p><i>Student initiated the end of session</i></p> <p>Dennaiz: Can I look at the role of the Multidisciplinary Team?</p> <p>Gillian: Can we just make sure we haven't missed anything</p> <p>Gordon: is there any thing else we should be looking at ?</p> <p><i>The allocation of work was student-controlled although Gordon was consulted to check that that no topics had been missed</i></p> <p>Gordon: No, if you're happy with that so am I</p> <p><i>No direction about presentation style</i></p> <p>Emily: OK - who's doing what ?</p> <p>Bruce: Are we working in pairs or ...?</p> <p>Ruth: There's enough to do a bit each</p> <p>Bruce: and then maybe put it together for feedback</p> <p><i>Gordon did not intervene. The team were allowed to decide how the work would be divided and how it would be presented</i></p>

In the first cycle Gordon's desire to control the team's activities extended from content to be learned to presentation style. However, while the students had been willing to follow his direction with respect to the content, they were less amenable to direction with respect to presentation. Changes in presentation style would have time implications for students. In the feedback session in cycle one, the students presented exactly as they had done in previous sessions by bringing notes and reading them out. Any alteration to this format would have taken more time in shared preparation. There was little interaction among students. The only questions asked were asked by Gordon who did not encourage the students to ask each other questions. Students in cycle three were allowed to decide on the presentation method. In this scenario the feedback session took a seminar type format, with presentation of papers followed by discussion. However, other formats such as role-play and posters had been used in previous scenarios, which may have been why Gordon did not attempt to impose a particular format.

Transition in Approach

The interpretive analysis of the data from the first cycle PBL session indicated that the facilitator maintained a degree of control over the content, running and feedback style of the PBL session. Directive questions were used to elicit factual content from the students. The pattern of dialogue in the session was facilitator-centred in that all discussion took place through Gordon. Open discussion between students was not encouraged. Students were given little evaluation of any aspect of their performance. No comments were offered on the content identified, contribution to the discussion or quality of feedback. Between cycle one and cycle three Gordon became less directive. His questions were more open and asked less frequently. Students' comments were accepted, allowing students to develop discussion around the scenario and to identify issues for themselves. Gordon had become less likely to intervene or to suggest issues to students. Silences

tolerated and were usually broken by students, rather than by Gordon. Student experience was more valued in that students were allowed to report on their practical experiences, particularly where the issues from the scenario could be linked to practice. The beginnings of positive evaluation were evident within the session. However Gordon still tended to intervene frequently and to engage with students in a teacher-to-individual student basis, particularly in the feedback sessions, rather than encouraging full discussion with the team.

Gordon's approach to facilitation in the first cycle was centred on student acquisition of factual content, managing the PBL and team processes for the students with a small amount of evaluative comment. Some slight interest in the students was evident from questions about experience in clinical areas. This may be represented impressionistically by considering the total approach to facilitation as a circle with coloured segments representing the balance of the characteristics of the facilitative style.¹

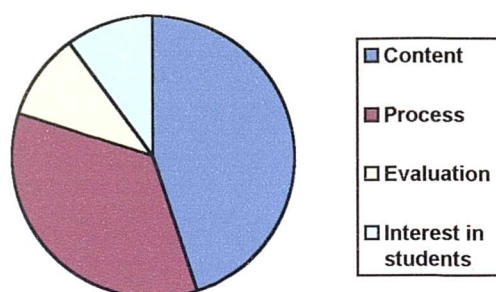


Figure 5.3 Gordon's Facilitative Style, Cycle One

The representation of Gordon's facilitative style in cycle three illustrates his reduced focus on content and process, his extended interest in the students and the increase in evaluation.

¹ It should be noted that although the representation resembles a pie chart, the various segments are derived from interpretation of the data and not from statistical analysis of, for example, time spent on each characteristic.

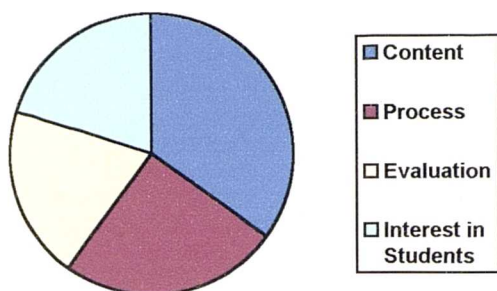


Figure 5.4 Gordon's Facilitative Style Cycle Three

The interview with Gordon which followed his first experience of being a PBL facilitator revealed his insight into his directiveness and also his frustration with a team who would not do what he thought they ought to do, even although he felt that he should not have to tell them what he wanted them to achieve.

My biggest concern, I think, was, I just, I felt that I wasn't free to just facilitate, that I really felt that it was far too active and far too directive, for my own comfort. They were asking lots of questions, and I was just throwing them some back. Instead of saying, yeah, you probably should be looking at this, or, maybe you should be varying things, or whatever, you know. I just said 'whatever you think's appropriate'. I tried to take a back seat, right from the beginning.

Gordon's dilemma was evident from the conflicting thoughts he expressed. From one perspective he felt that he was constrained by being too active and directive and that this had made him feel uncomfortable with the facilitation process. The amount of direction he had given the students did not match with his concept of facilitation in PBL. Conversely, he went on to state that he had not given the students enough direction in the early stages of PBL. Gordon thought that he had returned too many questions back to the students when, with hindsight, he should have given more answers, more direction. He had taken a 'back seat' from the beginning, but the students had not responded as he thought that they should have done. The comments given are

the conflicting thoughts and beliefs expressed by Gordon in the interview.

Comments made by Gordon in the next interview, during the third cycle, supported his shift away from a directive, teacher-centred approach towards a more student-orientated, facilitative approach.

The group are perfectly capable of dealing with the issues without me having to prompt them at all. I don't know if it is because I started out better, or if it is the personalities that are in it.

Although Gordon recognised that the team were 'perfectly capable' of identifying their own learning issues and developing them for themselves, he was unwilling to attribute all of the improved performance with his third cycle team to changes in his facilitation style. Some of the changes, he claimed, were due to the different 'personalities' within the team. Recognition that the characteristics of students within the team had an effect on the required facilitation indicated a shift away from an approach that was fixed and applied to all PBL teams regardless of the make-up of the team.

Gordon's espoused concept of PBL as being similar to counselling had been challenged by his experience with the first year students. He had been unable to adhere to counselling principles of sitting back and returning the questions to the students for them to resolve. In seeking for an alternative approach, he had reverted to a directive, teacher-centred style. However this 'tried and tested' teaching method did not feel comfortable in the PBL context. The thoughts expressed in the first interview reflect part of Gordon's transition as his existing beliefs about PBL and student learning and his previous experience of teaching came into conflict with the experience of facilitating a team of students in identifying their own learning needs and supporting them in the associated learning. The feeling of 'not being free to facilitate' in counselling terms was

uncomfortable, but being directive was also uncomfortable. This led Gordon to develop an approach that was less directive but still provided sufficient support to encourage students to identify and fulfil their own learning needs.

Conclusion

This chapter illustrated the process of interpretive analysis with respect to a single participant, focusing on Gordon's transition from being directive and teacher-centred to becoming less directive and more focused on the students and their learning. The final stage in the analysis was to undertake cross-case analysis. In this stage the interpretive findings from each case were compared with each other and further interpretation made in relation to similar interpretations in more than one case. Interpreted data from students was also re-examined during this phase. From this final analysis, common approaches to facilitation were identified, as were elements and features that had an effect on the development of the approach as the facilitator became more experienced. These findings are introduced in Chapter Six and further developed in Chapters Seven, Eight, Nine and Ten.

Chapter Six: Findings Overview

ALL THE BUSINESS OF LIFE

Arthur Wellesley, Duke of Wellington 1855

Introduction

This chapter and the following four chapters present the findings from the study. This chapter presents an overview of the approaches to facilitation and the elements common to each approach. In the subsequent chapters each of the approaches is described in detail using the data to illustrate how the approaches were applied in practice, the effect on students and factors that influenced the adoption and maintenance of the approach. Interpretive analysis of the data from the research indicated that, although every facilitator had a unique style of facilitation, there were sufficient similarities among facilitators to allow the identification of four distinct approaches to facilitation: directive conventionalist, liberating supporter, nurturing socialiser and pragmatic enabler.

At interview all 18 participants expressed similar concepts about the role of a PBL facilitator. All emphasised the ‘student-centred’ nature of PBL and the facilitator’s role in encouraging students to take responsibility for their own learning. Although the espoused concepts expressed contained a high degree of concurrence, the application of the concepts to facilitation revealed marked differences in approach. It is likely that the espoused concepts were not firmly fixed at this point and therefore subject to alteration before becoming embedded. Each of the participants in the research exhibited at least one of the four identified approaches during the period of the study. The approaches were neither fixed nor hierarchical but were time and context dependant in relation to factors associated with students, with the PBL material or in response to changes in the facilitators themselves. One of the approaches, the pragmatic enabler, was not identifiable at all in the first research cycle. By the end of the study the pragmatic enabler was the approach most commonly used, occurring

increasingly as facilitators became more experienced in the PBL process. The convergence in approaches was confirmed by students entering branch programmes at the end of the third cycle who reported fewer variations among the approaches of their CFP facilitators than students at the end of the first cycle had done.

Approaches to Facilitation

Four broad approaches to facilitation were identified: directive conventionalist, liberating supporting, nurturing socialiser and pragmatic enabler.

The Directive Conventionalist Approach

In the directive conventionalist approach learning remained content-focused and under the direction of the facilitator. Students were encouraged to seek out and learn facts. Aspects of PBL, such as learning skills or promotion of critical thinking, were of less importance than factual content. The characteristic feature of the directive conventionalist approach was the use of convergent, directive questions to elicit content. Control of the group process remained with the facilitator, who told the students how they should learn the material and the format the presentation should take. The approach was associated predominantly with novice facilitators who may have selected it for reasons of familiarity and feeling in control. It also appeared to be favoured more by male facilitators. Over time, with increased experience and understanding of the PBL process, most facilitators developed another approach.

The Liberating Supporter Approach

Facilitators who adopted the liberating supporter approach kept their intervention in the PBL seminar to a minimum. Within the limits of the trigger, the students were free

to decide on their own learning, in terms of both the content and learning method. Although there was some emphasis on encouraging students to acquire self-directed learning skills, the overall purpose of the learning was content acquisition rather than learning processes in their own right. This was the approach adopted least often. It was, however, the approach to which most facilitators aspired, at least in their initial experience of PBL. At the start of the research most facilitators expressed the belief that the student-centredness of PBL equated with a lack of intervention by the teacher. As experience of facilitation increased, the espoused belief shifted to one of providing students with support and assistance when required.

The Nurturing Socialiser Approach

The nurturing socialiser approach was student-centred, nurturing and supportive. Facilitators and students made extensive use of narrative. The approach was supportive with facilitators believing that students had to feel valued in order to be able to value and care for patients. Although the nurturing supporter approach valued students, facilitators tried to influence students' values and beliefs in an attempt to begin the process of socialisation into nursing in the School setting. Attempting socialisation in theoretical sessions was intended to promote good practice. The implication being that in the practice area students were all too easily socialised into poor practice.

The Pragmatic Enabler Approach

The pragmatic enabler approach developed over time with increased exposure of facilitators to PBL. It was not fully identifiable until the third cycle of the study when it had become the most common approach. The pragmatic enabler approach

emphasised learning processes rather than content acquisition. It had similarities with the concept of scaffolding student learning described by Hogan and Pressley (1997) and with modelling (Schön, 1987). Facilitators related to the requirement to produce qualified practitioners recognising that for many applicants, nursing was just another job rather than a chosen career. To enable students to achieve their maximum potential, facilitators required a flexible approach, which was time and context dependent and responsive to the needs of a diverse range of students.

Elements within the Facilitator Approaches

From the data, six elements were identified as occurring in various formats within each approach. Elements were teacher techniques that were combined in varying amounts and applications to create the overall approach. The six elements consisted of content elicitors, process interventions, engagement, management of frame factors, personal narratives and evaluation. Although all of the elements were present were present in each of the four approaches, they were used in different proportion and in different ways in each approach.

Content Elicitors

Content elicitors is the term I developed to describe the techniques employed by facilitators to encourage students to identify learning issues relevant to the PBL scenario and to ensure that students knew or understood facts related to those issues. Content elicitors were intended to encourage students to identify, describe, expand or explain the topic under discussion. Questioning by the facilitator was by far the most commonly used content elicitor. The others included encouragement, echoing,

recapping and making links. Table 5.1 defines the types of questions as they occurred in the study.

Table 5.1 Description of Question Types

Question Type	Description
Directive	Often related to biological science or to well-supported theories where there was little scope for argument Employed by teachers to check students' knowledge of facts Used most by directive conventionalist facilitators, transferred from existing teaching styles Directive questions sought a data-recall type response Convergent, often only one specific answer acceptable
Prompting	Included hints or cues within the questions as to the direction that the answer might take Predetermined answer expected Answer covered a broader area than the answer to a directive question, could be expressed in several ways, open to debate Used most by nurturing socialiser approach
Probing	Used to test the degree of the students' knowledge by encouraging them to develop a given answer Favoured by directive conventionalist facilitators in pursuit of a specific answer, satisfied once the expected answer had been given Used by pragmatic enabler facilitators to demonstrate to students how a line of thought or an argument could be developed, students encouraged to reflect on the process by which the answer had been reached Pragmatic enabler facilitators were interested in options and choices Having elicited one response, they frequently asked for alternative answers
Expanding	Designed to stimulate students' thinking about related issues, situations in which similar interventions might be appropriate or topics that were linked to the issue under discussion Used to link nursing aspects with other themes and with practice Used more by liberating supporter and pragmatic enabler Occurred most commonly in feedback sessions, where students had brought material for the team to discuss and apply to the PBL scenario Used to encourage students to identify gaps in the material found or to think of other situations where the findings could be used
Challenging	Occurred least of any of the question types. Employed to elicit the evidence-base for assertions made by students and to encourage them to judge the quality of the evidence Used in an attempt to provoke students to think more widely about ethical issues or to question their own values No expected response

Asking questions is an inexact science. The types of questions employed were not unique to PBL. There was a link, however, between the overall approach adopted by facilitators and the style of question chosen. As teachers gained confidence with PBL, the overall number of questions per session reduced and the reason for asking the question shifted from testing knowledge to promoting the process of learning. The timing and structure of questions had an influence on the PBL process. Questions that did not relate directly to the topic being discussed by the students caused disruption as the students then became unsure about the purpose of the discussion. Closed questions led to a decrease in student contribution. Students felt that they were being examined and therefore waited for the next question rather than entering into debate. Interruption of student-generated discussion with a question had a similar effect. Valle *et al* (1999) in a study of assessment of medical student performance in PBL indicated that this type of closed question was necessary to determine students' individual levels of understanding. Less directive open questions, Valle *et al* asserted, did not provide the accuracy required to assess student performance. Valle *et al*'s claim reflected nurse teacher courses in the late 1980s / early 1990s, the period when most of the School's staff had undertaken nurse teacher training. Nurse tutor students in this era were taught to test student knowledge through questioning in every teaching session. Use of directive questions, therefore, was a technique in which most of the nurse teachers had had considerable experience. Asking a question to which one did not know the answer was considered poor teaching practice. In PBL the situation was different. Facilitators stated their belief that students should be encouraged to identify their own learning needs. This could involve asking questions that did not necessarily test knowledge or questions to which the answer was unknown. The situation was unfamiliar and one that was uncomfortable for novice facilitators. Facilitators,

particularly those who had adopted a liberating supporter or pragmatic enabler approach, stated that they played 'devil's advocate'. Facilitators who used this question form pointed out that there was no expected response, 'Students come up with things I would never even have thought of and that's great.' (Jean)

Question Selection

Question selection depended on the purpose for which the question was being used and therefore was linked to the agenda of the facilitator. Facilitators whose agenda was to promote the learning of pre-determined content selected directive questions. Prompting questions were also used when the facilitator was seeking to guide the students to a specific conclusion. Although the prompting questions sought to point students towards a specific conclusion, the expected answers were not as specific as in directive questions. The answers related to a topic area rather than to a single fact.

Questions used in the pragmatic enabler and liberating supporter approaches mirror types of questions categorised by Taylor. Taylor (1986) identified five types of questions used in interviews to elicit responses. These types of questions were typically used to minimise the interviewer's influence on the respondent, a position that equated with the pragmatic enabler and liberating supporter approach. Taylor's primary question style took the format of a short explanation, which set the frame of reference, followed by a very open question. The other types of questions included requests for clarification, paraphrasing to verify the interviewer's understanding, requesting elaboration and verifying completeness. As applied by the pragmatic enablers and liberating supporters the explanation introduced the PBL trigger and set the context for the PBL scenario. It was then followed by an open question such as

‘What do you think about this one?’ Requests for elaboration and verifying completeness were also used, frequently in the pragmatic enabler approach and less often in the liberating supporter approach. Pragmatic enabler and liberating supporter facilitators tended to ask the students to paraphrase rather than do so themselves, for example, ‘Where have you got to?’, ‘Can you summarise what’s been covered?’. Requests for clarification occurred infrequently in the liberating supporter or pragmatic enabler approaches as students with this type of facilitator were more willing to ask each other about comments that they had not understood. Directive facilitators, in contrast, frequently sought clarification from students as a means of testing understanding of what had been learned.

Other techniques used to elicit content from students were encouragement, echoing, recapping and making links. The degree to which these strategies were used varied across the different approaches. Encouragement took the form of positive non-verbal communication such as smiling, nodding, eye contact or keeping the student talking by interjecting single words or short phrases as the student spoke for example, ‘yes, that’s right, good, go on, keep going’. Echoing was used in a similar manner. Echoing is a technique borrowed from counselling where the last sentence or phrase spoken by the client is repeated (Gallimore and Tharp, 1990). In counselling the tone usually is kept neutral. In PBL facilitation the cadence rose towards the end of the sentence. Echoing appeared to work well. Students either retracted what they had previously said, clarified the meaning of what had been said or continued to develop their topic. Occasionally another student would take over the explanation following echoing by the facilitator. Recapping was used extensively by nurturing socialiser facilitators. Points from the students’ discussion were summarised, rephrased in professional

language and presented back to the students. The issues that the facilitator considered key to the PBL scenario were highlighted, encouraging students to develop these issues further. The application of content eliciting techniques will be discussed in more depth with the individual approaches.

Process Interventions

Process interventions is the term that I applied in describing the actions utilised by facilitators to keep both the team's learning processes and the running of the PBL seminar dynamic. They included setting of ground rules, reminders to appoint a chair and scribe for the session and identifying behaviours indicative of feelings that had potential to disrupt the PBL process, such as boredom or antagonism. The participants stated that part of acting as a facilitator was to develop self-directed learning skills in the students. Process interventions related to this aspect of the role and to the management of team functioning. The process intervention element reflected the degree of autonomy and self-regulation afforded to the PBL teams by the facilitator. Interventions could relate to the minutia of running the PBL seminar through specific instructions for appointing scribes, managing the material presented in or generated from the scenario or suggestions for presentation. They could also be applied to the development of less tangible skills related to promoting bonding of the team and the development of skills associated with asking questions, chairing seminars or managing teams. Facilitators also had to develop techniques to prevent or deal with dysfunction in the team and to minimise any disjunction that arose.

Like the content elicitors, the type of process intervention was related to the overall facilitator approach. Directive conventionalist facilitators gave explicit instructions

about what *they* wanted students to do. Interventions focused on the actual running of the seminar, taking the form of instructions related to student behaviour within the team. For example, the facilitators' support group had agreed that students should formulate ground rules for their team during their early meetings. Directive conventionalist facilitators told their teams what should be in the ground rules. Often they acted as chair for the team, controlling student interaction and dictating the presentation mode for the feedback sessions. Liberating supporter facilitators, in contrast, intervened very little in the logistics of running the team. Although they handed out the trigger material, the chairing, discussion and presentation mode was left entirely to the team. Interventions were largely restricted to team dynamics when dysfunction threatened to become problematic. Nurturing socialisers linked many of their interventions to similar situations in practice. Facilitators who were nurturing socialisers often acted as team members, contributing to the discussion and making some suggestions. Facilitators with a pragmatic enabling approach spent time explaining to the team how PBL operated, adapting the type and amount of intervention according to the student level.

Engagement

The term 'engagement' is used in the thesis as the extent to which the facilitators allied or connected themselves to the students and the content. The engagement element of the individual approaches had two aspects: engagement with the students as individuals and engagement with the PBL material. It was demonstrated by showing interest in the students or the content of the PBL seminar. The engagement with the students appeared to be similar to social congruence (Schmidt and Moust, 1995). Social congruence was defined as the facilitators' interest in and liking for the

students. Teachers who had more interest in increasing the students' learning than in demonstrating their own knowledge were the most appreciated by students. Students in this study judged the degree of interest of teachers in several ways. Having eye contact with students, even during lectures; making an informal comment, about the weather or the traffic, for example, at the start of sessions or including a humorous remark at some point were cited as evidence of interest. Interested teachers also knew at which point any particular cohort of students was at in the programme and could link what they were teaching to placements or future sessions. They made time for students who approached them with queries. Interest from the students' perspective was related to teachers knowing about the students, how far through the programme they were and applying taught material to forthcoming practice. Recognition that students were people and experienced the everyday trials of life like the weather and traffic; possession of characteristics such as a sense of humour and being willing to help over and above set sessions were valued. Engagement was related to the power distribution within the seminars. Teachers who engaged with the students were less likely to be directive and more likely to allow students to follow their own interests. Several students summed up the concept of teacher engagement as 'teachers who enjoy teaching'.

The engagement element also encompassed elements of safety and comfort. Confidentiality and mutual respect for team members are an integral component of PBL. For discussion to be free and relaxed, students need to feel that they can speak out within the PBL seminar without being ridiculed or having any mispronunciations or misunderstandings communicated to the whole class. Creating and maintaining an atmosphere of safety is part of the facilitator role. The safety element contributes to

the feeling of comfort within the team. Comfort in PBL has strong links with critical challenge. For PBL to be effective in promoting learning, students require to challenge each other and to develop the skills to defend their argument against challenge. If the climate within the team is too comfortable, with all presented material being accepted unquestioningly, the cognitive skills prerequisite to critical thinking will not be developed.

Engagement with the material presented in the PBL triggers also influenced the facilitator's approach to the PBL seminar. All of the facilitators should have been familiar with the material used in both the CFP and the respective branch programme. However, the analysis indicated that facilitators favoured some triggers over others and that the amount of knowledge and understanding possessed by the facilitator influenced the way the trigger was approached. Some facilitators, mainly those who adhered to the directive conventionalist approach thought that they were 'better facilitators' when they knew more about the topic because they could ask more 'in-depth questions'. Others, the liberating supporters in particular, claimed that having the skills to ask the 'right sort' of questions to stimulate thought was more important. Knowing 'too much' about the subject, the latter group claimed, impeded facilitation of student learning because of the temptation to guide students towards the teacher's perspective. Facilitators generally acknowledged that it had taken time become comfortable with the material in all of the triggers, but thus they had gained increased awareness of the learning task faced by the students throughout the programme.

Narrative

In the context of the study, the term ‘narrative’ is used to refer to the telling of stories that had some relevance either to the PBL scenario under discussion or to the context of the team. Personal narratives or anecdotes were a feature of each of the four approaches. They were used to enhance the reality of the PBL scenario and added an experiential learning aspect to PBL. The format of the narratives, how they were used in relation to the PBL scenario and ownership of the narrative varied in each approach. Extensive narratives from both facilitators and students were a central element of the nurturing socialiser approach, but were less frequently used by directive conventionalists.

Frame Factors

Jacobsen (1997) in a study of medical students on a problem-based undergraduate programme, found that students often brought what he termed ‘frame factors’ to PBL tutorials. He defined a frame factor as an issue not related to the PBL scenario being studied, but of importance to the team. Although frame factors were not integral to PBL in the way that the other elements were, by their persistence they became incorporated into the seminars. Frame factors in Jacobsen’s study usually related to events that had occurred during the students’ clinical experience. Facilitators tried to steer students away from these issues, back to the PBL scenario, often with little success. The most common frame factors raised by the nursing students in this study concerned transport between the two campuses, assessments and placement allocation. As frame factors had the potential to severely disrupt a PBL seminar, facilitators developed various methods of dealing with them ranging from ignoring them as much as possible to actively inviting students to raise areas of concern.

Evaluation

Evaluation in relation to the study refers to oral or written comments made by facilitators about student performance within the PBL seminars. Evaluation in this context was qualitative and intended to assist students in either improving understanding of content or developing specific skills. It thus had similarities with formative assessment. However, within the study, the ultimate aim of this element was to encourage students to reflect on the overall experience of the PBL seminars, to consider how helpful the scenarios had been in triggering learning and how valuable the learning might prove to be in practice. In this form, the aim was one of the most difficult to achieve and, in general, was applied less than the others.

Evaluation by facilitators was limited almost exclusively to performance in feedback sessions. Only in the final stages of the research was facilitator evaluation of introductory or review sessions noted. Evaluation was a one-way system. Students did not evaluate the helpfulness or otherwise of teachers in facilitating student learning. Students identified evaluation on their performance from both product and process perspectives as an integral part of PBL. Most students had difficulty with the concept of learning for learning's sake, at least in their early experience of PBL. Previous encounters with education had fostered the belief that learning should be formally recognised through some type of test. To be asked to learn in order to use the knowledge gained in a practice setting rather than in a piece of formal written work, which would be graded, was new and difficult concept. They frequently complained that evaluation of their performance in PBL seminars was lacking and continually asked which assignment tested the work undertaken in PBL. Explanations that learning through PBL complemented learning of clinical skills and was 'tested'

through their ability to nurse patients were not well received. Lack of evaluation of performance continued to be a common criticism of PBL by students in the early stages of the programme. The complaint arose regardless of the approach taken by the facilitator. Students were uncertain of the new approach to learning and concerned that they were not doing the 'right thing'. Analysis of the tapes from the second and third cycles indicated that facilitators did try to evaluate students' performance. Approaches to the evaluation element varied from none to 'expert' filling in of perceived gaps to encouraging students to reflect on their own learning. Several facilitators attempted to initiate reflection. Facilitators using a directive conventionalist approach tended to focus on content, asking students if they felt that the objectives set for the session had been covered whilst the nurturing socialisers and pragmatic enablers prompted students to think about the application of the learning. Often students were asked if issues had been missed. Increasing confidence in themselves and the PBL process helped some students to evaluate their own performance. Other students stated that as PBL was not formally assessed they did not always put as much effort into it as they might have done. Yet one team in their last PBL module reflected that 'the things we remember most are the things we studied in PBL'.

Developing an Approach to Facilitation

Initially all eighteen participants were enthusiastic about PBL and appeared to have embraced the student-centred philosophy of the strategy. At the commencement of the study teachers sought to develop the 'right' way to facilitate PBL. This mirrored the students' desire for reassurance that what they were doing was correct. Participants recognised that there would be differences in facilitation resulting from their own

individual characteristics. There was a general feeling, however, that there was a new set of skills to be learned and that this set of skills would be common to all facilitators. However, during their first experience of PBL most facilitators acted as if they still had control of the learning, initially adopting a directive conventionalist approach as their theory-in-use. This approach had the advantage of being similar to previous experience of small group work and thus was tried, tested and familiar. On reflection, teachers recognised that they found it very difficult to hand over control to the students. Talking ‘too much’ was perceived as an indicator of being too teacher-centred and keeping control. It was an issue that was frequently aired at the facilitators’ support group. Many of the facilitators thought that they talked too much. Most facilitators asserted that they were going to keep quiet in future PBL sessions. Various tactics for keeping quiet, such as counting the drawing pins on notice boards or planning the spring planting for the garden, were shared. Such tactics may have been responsible for some inappropriate interventions in the directive conventionalist approach. If facilitators were deliberately employing diversionary tactics, it seems likely that these could divert them from following the students’ discussion, leading to the asking of questions that did not relate to the topic under discussion. As facilitators gained confidence in PBL, talking too much ceased to be an issue. Facilitators appeared to find a level of talk with which they felt comfortable and that ‘felt right’ for the team.

Each facilitator selected the balance of the elements to create their approach to facilitation. The ways which individual elements differed in structure and their application by the individual facilitators is summarised in Table 5.2.

Table 5.2 Elements of Facilitation within Approaches

Element / Approach	Directive Conventionalist	Liberating Supporter	Nurturing Socialiser	Pragmatic Enabler
Content Eliciting	Convergent questioning, often targeted at a specific student. Recapping and linkage requested / given by facilitator	Open, divergent questioning, used minimally. Intended to promote coverage of topic Students prompted to recap and make own links	Closed questions, often lengthy, answer often provided within question stem Recapping and linkage by facilitator	Mix of divergent and convergent questions adjusted to level of performance of team Use of questions to encourage wider thinking around issues raised Recapping and linkage initially by facilitator, passed over as (if) team develop
Process Interventions	Focus on facilitator Silences not well tolerated, no building of shared meanings Instructions re: scribing, format of presentation Facilitator deals with dysfunction in team Disjunction - facilitator takes over Facilitator as teacher / expert	Focus on students, Silences well tolerated Establishment of shared meanings. Team find own ways of managing the work and each other. Facilitator as resource / reality check	Focus on facilitator, Silences do not develop, Establishment of shared meanings but discussion led by facilitator Suggestions given on scribing, allocation of work. Facilitator often acts as chair / scribe Dysfunction talked through Facilitator as team leader	Focus on facilitator Silences tolerated, but students encouraged to talk and explore concepts Students encouraged to manage work and each other, but given help if requested Reinforcement of student roles within team Modelling of roles Facilitator as honorary team member
Engagement - students - material	Not engaged with students, follows school or own agenda. Student-to-student questions invited, but no time allocated for answers or discussion Student-facilitator questions answered Use of positive non-verbals and voice tone to reinforce 'correct' answers Comfort within team not promoted Safety maintained Engaged with content of PBL trigger	Engaged with students, discussions tracked, Students set agenda Use of non-verbal cues Comfort less important than safety Direct questions from students if related to process or contexts otherwise referred back to team Engaged with content as determined by students	Engaged with students, discussion shared Students set agenda, facilitator moulds to fit school / own agenda Comfort actively promoted ((s)mothering), often at expense of safety Questions from students answered at length, little inter-student questioning Non-verbals lost in amount of talk Engaged with content as it relates to own interests and experience	Engaged with students. Students set content agenda, facilitators set process agenda - made explicit Challenge and inter-student questioning encouraged Minimal use of non-verbals Safety and trust more important than comfort Focus on processes rather than content

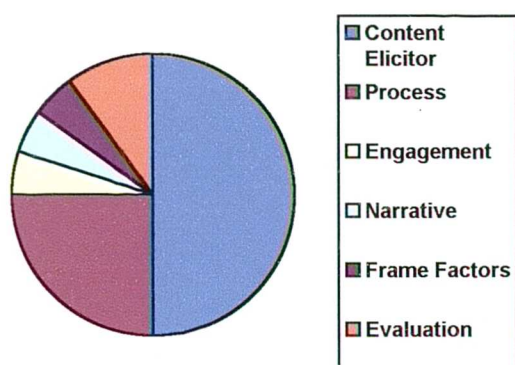
Element / Approach	Directive Conventionalist	Liberating Supporter	Nurturing Socialiser	Pragmatic Enabler
Frame factors	Tolerated to set time limit, if raised. No attempt to resolve Referred to other personnel	Students deal with issues raised, no limits set by facilitator, no resolution by facilitator	Actively seeks issues, debated at length. Attempt to resolve within team	Clinical factors sought at start of each term, students encouraged to reflect Team decide which issues to pursue Advice given on how issues may be resolved
Narrative	Facilitator narrative only Brief outline, clinically based, used to illustrate application in practice	Facilitator narratives brief, clinically based Students narratives detailed, clinically based, theory / practice linkage encouraged	Extensive and detailed narratives from facilitator and students Narratives from practice and social experience Facilitator presented in favourable light Narrative used to answer questions	Facilitator and student narrative, clinically based, detail variable. Facilitator errors recounted Promotion of theory / practice linkage
Evaluation	Either none or given individually to each student Content focused	Students self-evaluate, emphasis on content	Given to team as a whole, content focused, often accompanied by mini-tutorial on points 'missed'	Self-evaluation aimed for, with emphasis on performance in team rather than content

Initially the selection of elements by facilitators appeared to be unconscious. As facilitators became aware that their first approach to facilitating PBL did not achieve the desired results, they deliberately began to combine the elements in specific proportions in response to the needs of the team.

Facilitators commented on the amount of preparation that was needed for PBL. They felt that non-facilitators regarded it as an easy option. The material was centrally prepared, all the facilitator had to do was go and sit with the students. 'You could take in your knitting' had been commented to one colleague. Facilitators stressed that they had to explore the scenario for themselves before they worked with the students. Even

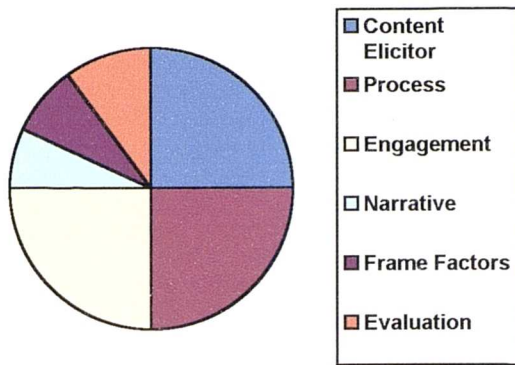
then there were surprises, but that was what made PBL enjoyable. Increased confidence and practice increased the ability of facilitators to ‘think on their feet’ and respond to the ‘surprises’ to an extent where many reported that they had begun to find lecturing ‘boring’ because it usually followed a predictable format. Facilitation in contrast, was a dynamic process. Experience of facilitating PBL allowed teachers to create an approach to facilitation with which they felt comfortable. Teachers whose concepts had altered to espouse the PBL philosophy and who had adopted student-centred strategies sought to find an approach that allowed them to adjust the balance of the elements to meet the needs of a particular team in a particular context. With increasing experience these facilitators, the pragmatic enablers, began to recognise factors that had an influence on the PBL process and became increasingly able to adjust the approach to best assist students in their learning.

Figure 5.1 presents a diagrammatic representation of the approaches, showing the balance of elements in a typical example of each approach.

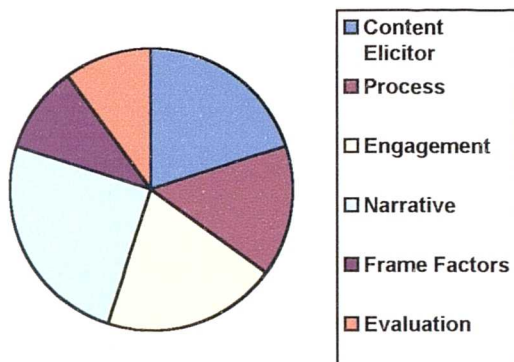


Directive Conventionalist Approach

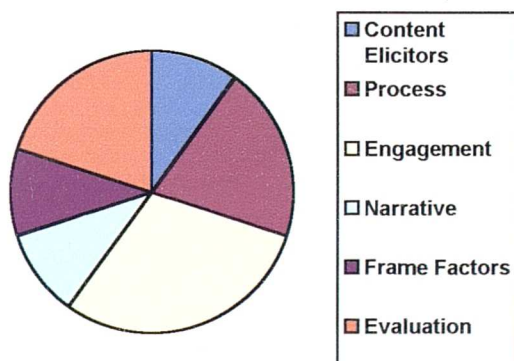
Figure 5.1 Typical Balance of Elements in Approaches



Liberating Supporter Approach



Nurturing Socialiser Approach



Pragmatic Enabler Approach

Figure 5.1 Typical Balance of Elements in Approaches

Toxic Facilitation

Over the three years of the study 11 of the 18 participants developed their approach to fit with the concept that students could acquire the skills necessary for lifelong learning. Of the other seven teachers, six retained their original approach throughout the study. Their beliefs about student learning did not conflict with their approach. One developed an atypical approach that was 'toxic' in that it turned students against PBL.

Eileen was a teacher in the mental health branch. She had a clinical background in acute psychiatry. She was based on the Dunagoil campus where she had worked for 15 years, firstly as a clinical teacher and then as a nurse teacher. Many of her students and several of the teaching staff described her as 'a wee nippy sweetie'. This Scots term while partly referring to her stature, indicated that although she was usually pleasant, she had a sharp tongue. During an interview Eileen told me that she thought that far too much time was taken up with PBL. The time could be used more productively in lectures. Students did not require all the time allocated to PBL time just to consider a few issues. Eileen did not appear to enjoy this style of teaching. As participation in PBL was not compulsory for teaching staff, I was puzzled that she had elected to become a PBL facilitator. During the facilitator training days she had been enthusiastic and had had several good ideas for PBL triggers. I asked why she wanted to continue facilitating when she and her students seemed to get so little from it. She stated that she felt that PBL was the way things were going but she wished that it did not take up so much of her time. The financial situation in the university meant that teachers really had to be involved in new initiatives if they wanted to keep their jobs. This latter statement was a relatively widespread belief within the School at the time,

although there had been no threat of redundancy. Additionally the high level of 'natural wastage' had brought about understaffing. Some further insight into Eileen's behaviour was provided by a module leader in the mental health programme who thought that Eileen did not like teaching. He based his statement on having asked her to teach her specialist background topics in his module. When he asked her for availability she said she always asked clinical staff to teach those topics.

Eileen had communicated her view of PBL to the students in her CFP team. They too perceived PBL as a waste of time. Eileen ran her sessions back-to-back (feedback from one trigger followed by the introduction to the next one). Other facilitators had found that running sessions back-to-back reduced the amount of discussion and exploration. It gave students the message that PBL was something that could be rushed and therefore did not really matter. As it was the strategy used to teach the nursing aspects central to the programme, most facilitators perceived this message as dangerous. Eileen's students, however, approved of the back-to-back sessions. It gave them more free time and made the other students jealous. Students who had had Eileen as a CFP facilitator and then moved into the branch programme were less enthusiastic about the doubling up of sessions.

I thought it was great at the time. We had days off when the other poor buggers had to come in for PBL. But now, well, I feel a bit done. I like it now, get a lot out of it, but I just wonder what I should have got before.

John, 3rd year student

John indicated that what he had experienced as 'PBL' with Eileen differed from his later experience. During the CFP the extra time off had seemed like a bonus, but in the later stages of the programme he realised that the lack of time for discussion and exploration in PBL had left him at a disadvantage to the 'other poor buggers'. Not all

students realised that they had been disadvantaged. They continued to regard PBL sessions as unimportant. In the branch programmes their attendance was poor and according to their facilitators, their input was worse. Eileen's approach remained very directive, gradually shifting towards an approach where the students were given the trigger material, told what to study and how to present their findings. The elements concerned with engagement, frame factors, narrative and evaluation were barely present (Figure 5.2). The difficulties caused by toxic facilitation could last for the whole programme and affect other students. She had not espoused the PBL philosophy and over time her actions changed to match this, spending as little time and effort on it as possible and encouraging her student team to do the same.

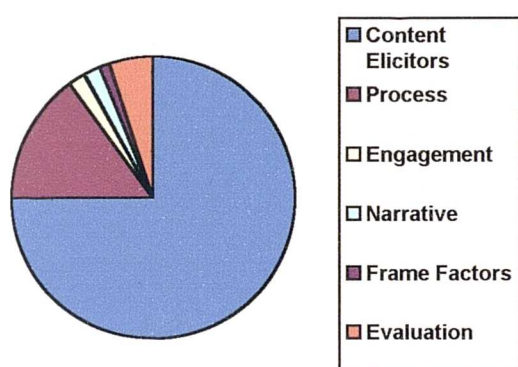


Figure 5.2 Toxic Facilitation

Conclusion

Exposure to the PBL process increased the realisation for facilitators that different skills were required. Existing practices based on a teacher-centred model did not produce the desired results of self-directed, critically-thinking students. The newly-espoused belief appeared to be in conflict with the existing belief that teachers had a

central role in helping students to learn. The concept of teachers not being central to student learning raised many issues including threats to self-esteem and fear of job loss. Experience of facilitation led to the realisation that the concept of teacher-centrality in student learning would have to be redefined. Only then would the 'different set of skills' start to become reality. The common approach to facilitation was in reality many-faceted. Further exposure to PBL brought recognition over time that the variation in student personalities and abilities linked to the range of material required facilitators to be flexible and adaptive, responsive and inclusive.

The Duke of Wellington (1855) reflecting on his Peninsula Campaign wrote that the all the business of life is to find out what you do not know from what you do. The next chapters present each of the four approaches, taking what was known (the data) and analysing it interpretatively to create a picture of what was unknown, all the business of life - the lived experience of becoming a PBL facilitator.

Chapter Seven: Findings (1)

THE DIRECTIVE CONVENTIONALIST APPROACH

Introduction

This chapter presents the characteristics of the directive conventionalist approach, indicating the balance of elements that made up the approach, the teachers most likely to adopt this approach to facilitation and the effect of the approach on students. Data are used to highlight the salient features of the approach and to allow readers to form their own opinions about the approach.

Characteristics of the Approach

The directive conventionalist approach was characterised by an emphasis on encouraging students to find and learn facts under the direction of the facilitator. The ‘value-added’ aspects of PBL such as the development of learning and communication skills, promotion of critical thinking and team working were perceived as being of lesser importance than the acquisition of factual knowledge. The identifying features of the directive conventionalist approach were the use of convergent, directive questions to elicit content and ensure the control of the group process by the facilitator. A directive conventionalist approach was associated predominantly with novice facilitators. Only two facilitators out of the eighteen participants in the study did not adopt a directive conventionalist approach with their first teams. Of the four approaches, the directive conventionalist approach bore most resemblance to the role of the tutor in small group work used in the two colleges before the introduction of PBL. In this type of small group work the decisions about what was to be learned, how long the group had to produce work and how the learning should be organised and presented were made by the teacher. This approach may have been selected by new facilitators for reasons of familiarity and feeling in control. Over time, with increased experience and understanding of the PBL process,

most facilitators developed another approach. Ensuring that the students actually learned what was intended was a major issue for directive conventionalist facilitators. Sadlo (1995) stated that fear of not 'covering the ground' and thus depriving students of the content set out in validated course documents was a common problem for teachers adopting PBL. This seemed to be true of the facilitators in this study.

Teachers whose expressed concept of PBL reflected their espoused concepts of learning and teaching were uncomfortable with the directive conventionalist approach. Over time the approach was altered in response to influencing factors, such as student characteristics and discussion with other facilitators. When the expressed concept of PBL did not match espoused concepts, the facilitators' espoused beliefs about learning and teaching remained predominantly teacher-centred with a pattern of facilitation that reflected their directive conventionalist approach and matched their individual concepts of PBL. The approach remained essentially unchanged, only altering slightly in response to the influencing factors. The lack of responsiveness occasionally led to situations where the approach caused difficulty in facilitating. On these occasions, the loss of the familiar, trusted approach and the resulting disjunction in the PBL team was blamed on the students. Mifflin *et al* (2000) reported similar findings where failure of the PBL team to identify and achieve learning outcomes was attributed to lazy, arrogant or stupid students rather than possible deficiencies in facilitation.

The directive conventionalist approach was associated with control of the team and its process by the facilitator. Initial analysis of the data from the first research cycle, indicated that a mental health nursing background was the strongest influence on the

directive conventionalist approach. This was reinforced by interviews with two facilitators with mental health backgrounds. Gordon, who had been a charge nurse in an acute psychiatric unit before becoming a teacher and viewed himself as a fairly laid back person, described how difficult he had found facilitation

I didn't think that it would be so hard. I've had a lot of experience with small groups in clinical and education settings. But PBL is different. The students have control, even down to when we have coffee.

Angela, who also had a background in mental health, but in community mental health nursing, added her perspective.

People think psyche nurses are laid back but they're not. Mental health nurses, especially in institutional settings, have a lot of power and control over the clients. They have a very strong power base which is rarely challenged by the clients and this makes it very difficult for them to relinquish control. When they come into education the control is transferred from the clients to the students.

Gordon had expected that his experience with small groups in practice and educational settings, coupled with his relaxed attitude to life in general, would transfer directly to PBL. He realised that in the past, contrary to being 'laid back' and allowing people freedom, he had been exerting control over the members of his group. Handing control to the PBL team was not as easy as he had thought it would be. Angela linked the vulnerability of clients in mental health care settings to the amount of power to which mental health nurses were accustomed. Mental nurses had the unquestioned control, often symbolised by the open carrying of large bunches of keys. This power was difficult to relinquish. When mental health nurses came into nurse education as teachers, students were viewed as substitute clients who needed to be guided, with the implication that the guidance was given by those who knew best: the teacher. The link between mental health nursing and directive conventionalist facilitation was less noticeable in the data from facilitators in the second and third

cycles. As facilitators and students became more experienced in the PBL process, mental health branch facilitators, in common with those from other branches, shifted towards an approach that was less directive and controlling.

The Approach in Action

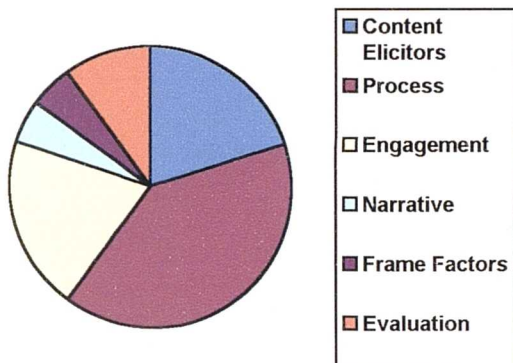
The directive conventionalist approach was also demonstrated by Andy and Ewan who each had a clinical background in adult nursing. They both adopted a directive conventionalist approach that remained unchanged regardless of the educational level of the students or ability of their teams or the content of the trigger.

I first met Ewan at a conference around the time of the merger of the two colleges. Before the move into Higher Education, most nurse educators dressed fairly conservatively, even at conferences. Ewan sported a spotted, red neckerchief that, with a bright green waistcoat and gold pocket watch and chain, made him noticeable. He paid me little attention, being more interested in persuading my (female) companion that he would be a valuable addition to the community nursing teaching team at Kingarth University. Three months later he joined the School. Ewan was popular with the students, having the reputation of being easy-going. At interview I was struck by his apparent commitment to PBL and his thoughts on its philosophy.

I think that when we're facilitating a problem-based learning group in the truest sense of the word, we are enabling them [the students] or empowering them to do more than they possibly realise at the time. I try not to say too much [when I'm facilitating]. Maybe that's something that holds us back as PBL facilitators - if I'm constantly asking myself 'should I be saying this' or 'should I not be saying this?'. Sometimes it feels the most natural thing in the world to say 'but have you thought of.....?' and then you say 'Ah, this is PBL, they have to think of it rather than me throwing it at them. So I try to use empty spaces and gaps and encourage the students to fill those gaps rather than me filling them.

Ewan's statement indicated that he had subscribed to the student-centred philosophy of PBL. The meaning of 'holding us back' was unclear. In one sense Ewan suggested that past experience as a teacher interfered in some way with his ability to facilitate. Alternatively it might mean that as a facilitator, he was withholding something, either knowledge or skills, from the students. The directive conventionalist nature of Ewan style inclines towards the latter meaning. Students need to recognise that facilitators are the experts and possess knowledge and skills to which the students should aspire.

Espoused Concept



Actual Approach

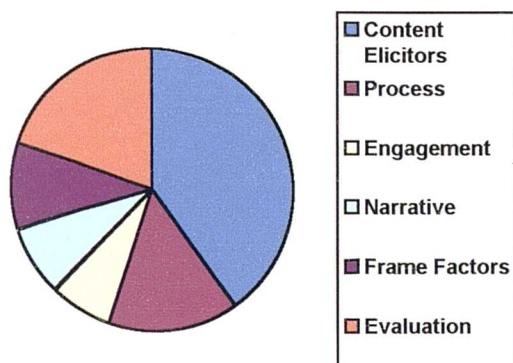


Figure 6.1 Ewan's Espoused Concept and Actual Approach

Ewan claimed to be using an approach that did not seek to direct students actively, but rather attempted to encourage students, to allow them to fill gaps in the discussion themselves instead of asking direct questions. In contrast to this espoused theory, there were very few empty spaces and gaps on Ewan's tapes. If the students paused for breath, and sometimes while they were still speaking, Ewan filled the gap. He was intolerant of silences, intervening promptly with a direct question or a suggestion as to what the team should do next. Several other teachers stated that they found silences uncomfortable, feeling that the onus was on them to stop the silence from becoming unbreakable. In situations where the students indicated that they would prefer to tackle the trigger material in a particular way they were often over-ruled by Ewan who enforced his preferences by interrupting discussions. One occasion he split the team into two smaller groups because he felt that 'the material is better approached in this way'. Ewan often had his own conception of what the issues were and how the team should be addressing them. He told the students that they could investigate the topic to the depth they 'felt comfortable with' but then indicated that the depth they had selected was not sufficient. Students in the early stage of the programme had little perception of 'depth' of material or academic level, relying on teachers to guide them to what was required. Although being directive, Ewan provided little guidance to students as to what his concept of 'sufficient depth' was or how they could achieve it. In a later interview I asked Ewan what skills he used as a facilitator to keep the PBL process moving. His reply gave some insight into his theories-in-use.

I probably use skills similar to those of chairing a meeting and I've chaired a few committees and still do, and PBL, in a sense, is an extension of that.

Ewan appeared to enjoy his role as chair of two committees within the School. He had been an enthusiastic volunteer for the positions 'looks good on the CV' and was

meticulous in carrying them out. His comparison of PBL seminars with a meeting of which he was the chair, appeared to indicate that he perceived himself to have control over the seminar. As chairperson he was in a position to compile agendas, deciding what items to discuss and what precedence they should be given. During the time of the study several members of staff grumbled that items they had asked to be raised in one or other of the committees which Ewan chaired never reached the table because they were on the end of the agenda. Ewan appeared to exercising some control over what was discussed. He went on to tell me

Something I've carried over into my teaching from my practice is that if a client had an agenda and I had mine, mine had to wait because things were concerning them. If I gave them my ear and dealt with what their problem was, I was then in a position to introduce things of my own.

Ewan seemed to be suggesting that, although he listened to the students, he was only waiting to introduce his own agenda when the time seemed right; a style similar to his chairing of meetings. This was similar to the initial approach of the mental health branch teachers, where strategies that had been used with clients, were transferred to students.

Andy also adopted a directive conventionalist approach to facilitation. Andy had joined the Ascog College six years before the merger. On leaving school, he completed a degree in accountancy then entered nursing at the suggestion of his wife (also a nurse). He enjoyed being a man in a woman's world. Within two years of qualifying he had become a charge nurse on night duty, being accepted for the clinical nurse teacher course a year later. As a result of changes in nurse teacher education, Andy transferred to the nurse teacher diploma course immediately after completing the clinical teacher course. Several older members of staff viewed Andy as lacking in

clinical experience, jumped-up and ambitious, a 'company man', willing to support all management decisions without considering their merit or implications. By the time of the merger Andy had attained a position of authority in the School. However, while students recognised his authority and frequently by-passed other parts of the system to obtain his decision directly, the staff's perception of him remained largely unchanged and his rise was regarded with a degree of cynicism. He was positive about PBL and his role as a facilitator.

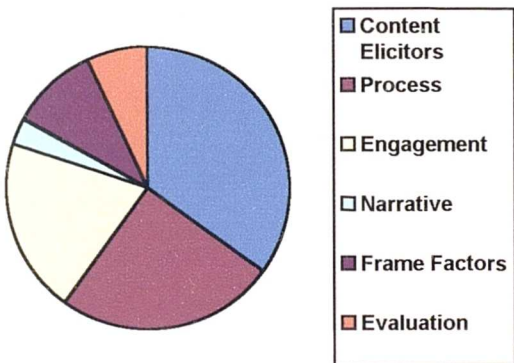
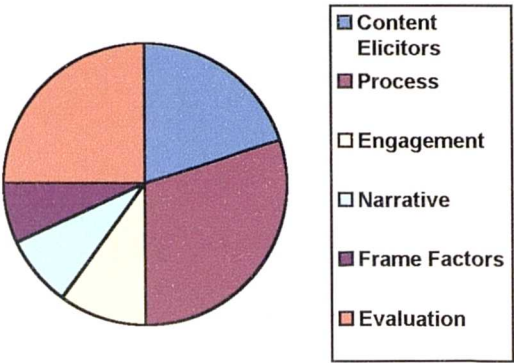
Initially in the first, em, round, to begin with, it's to get the group to gel. To facilitate their introduction to each other.... Related obviously to what the PBL is about. More controlling in the earlier parts and as the group developed to step back and let them run a bit freer, without intervening, to clarify issues. For example, someone was feeding back and it wasn't clear - I wasn't sure what they were saying and the group wasn't sure and wasn't ready to challenge them. Maybe I shouldn't have did, but I said "can you clarify that?" and actually at that point it was quite good, because I said "Can you explain that again?" and the person who was feeding back said "Well, I'm actually not very sure what it means" and one of the other students said "I think it means this" it was actually one of the other students who clarified it. So I think a lot of it [facilitation], is bringing other people into involvement.

Andy indicated that although he recognised a need for control in the early experience of PBL, this should decrease over time, with students being given more time to explore and clarify issues. He talked about his role in developing the students as a group, but did not mention assisting students to identify and meet their learning needs as part of the role.

In practice, Andy's concept of 'bringing people into involvement' translated into telling them what to do. Like Ewan he did not tolerate silence. In introductory sessions students were given less than two minutes to read and develop an understanding of the trigger material. If they had not started to discuss the material

within this time, Andy would ask a convergent question based on his perception of the related issues. Figure 6.2 illustrates Andy’s espoused concept and his actual approach.

Espoused Concept



Actual Approach

Figure 6.2 Andy’s Espoused Concept and Actual Approach

Several incidents from the data highlighted the controlling nature of Andy’s approach. In the first he instructed students to rearrange the classroom layout from the ‘round table’ set-up agreed for PBL. Students were told to move desks so that they all faced the front of the room. Instead of being in eye contact with each other, the students’ attention was now focused on Andy. In a second example Andy held back some of the

PBL material that the scenario developers had indicated should be given out with the trigger. The material provided patient detail that could not have been generated from the trigger and was designed to assist the students in identifying issues. Andy directed the students towards a particular line of thinking, allowing them to develop disjunction. Then he produced the supplementary material. The material resolved the difficulty. Instead of identifying that they should have been given the material sooner, the students felt grateful to Andy for helping them. A third incident occurred in one of Andy's adult branch teams when the team was directed to present through role-play. Several students tried to negotiate a different form of feedback but were over-ruled. Although Andy claimed to be willing to give students freedom to develop their own thinking, he continued to direct his team with regard to content and presentation format.

Directive conventionalist facilitators did not regard themselves as members of the PBL team, perceiving their role to be one of directing and guiding rather than participating and contributing. The focus of learning was kept with the facilitator as demonstrated in this feedback session on an elderly lady who had been admitted for respite care (Appendix 8). Moira, a student in Andy's CFP team, had finished presenting her findings on nutrition in the elderly.

Andy: Any questions? Can I just ask you've got all this data about this lady, her likes and dislikes. You've tailored her diet to suit. How are you going to tackle the daughter in two weeks?

Moira: Organise home care

Andy: You can look at that. What about her daughter?

Moira: Go back to her

Andy: You've been neglecting your mother for the last few years. So how are you going to approach her?

Moira: Oh, em, well.....

Andy: Involve her

Moira: yes, might be some leaflets she could get.

Andy: you can go back to her

Moir: it might be the mother who's fussy

Andy: you need to find out about the daughter. What about her diet?
What about her likes and dislikes. We've found out about the mother's diet.

Moir: em

Andy: So it's how you do it. It's something that if you picked up on, there's some form of engagement. Who would be involved in this?

Moir: dietician, in the community if she goes home. GP?, district nurse

Andy: why is this a nursing issue?

Moir: em, to raise awareness

Although the student had presented on nutrition, she was not permitted to develop her learning. Andy asked the other team members if they had any questions, but he did not allocate time for them to be asked. He moved directly to his own concerns about the impact of nursing actions on carers, entering into a question and answer session with the student who had presented. As the student had elected to explore nutrition for elderly people, not carer support, she was initially uncertain about the answers. The rest of the team was not invited to contribute. The session continued with more direct questions about carer support interspersed with factual information from Andy. The same pattern was followed with the other students. They presented their information and were then subjected to a series of questions about a related aspect chosen by Andy. He had complete control of the feedback seminar. He decided the questions and who was going to answer them. As he asked the questions, he knew the answers, reinforcing the model of teacher as subject expert, in authority. Rather than bringing students into the discussion, he continued to relate to each student and their chosen topic on an individual rather than an integrative basis. Students who were not involved in the question and answer session were excluded. Andy felt that certain topics had to be covered and was adhering to the safety of a familiar teaching style where he was in control to ensure that these topics were covered.

As demonstrated by both Ewan and Andy, the directive conventionalist approach focused on the acquisition of knowledge. Questions tended to be very directive, not only with respect to content but also in targeting the student expected to give the answer. Questions of this type were particularly common in introductory sessions and were usually content related, seeking information related to the PBL scenario outcomes identified in the facilitator guide and testing knowledge students could be expected to have acquired from fixed resource sessions. Students were guided towards answers that matched issues from the facilitator's agenda, rather than being prompted to develop their own agendas related to individual learning needs. The learning issue was indicated first by the facilitator and then students were questioned about it. In the feedback sessions questions were used to test student knowledge. These questions were also convergent and goal orientated in that they required a specific answer, decided in advance by the facilitator. Often they were related to biological science.

Directive conventionalist facilitators often provided the answers to the questions themselves instead of waiting for students to respond. These answers were often lengthy and frequently developed into mini-tutorials. A question to the students about the physiological mechanisms of congestive cardiac failure subsequently led to 20 minute explanation (with diagrams) of hydrostatic and osmotic pressures in the body. Again many facilitators were aware that they did this, even although they felt that they should not. Charlotte, an adult branch facilitator , with many years' experience of teaching first year students commented

It's so easy to do when it's something you used to teach. They [the students] say something that sparks off a question in your head and before you know it you've launched into the lecture.

The staff in the study each had a minimum of ten years experience of subject-based teaching. The previously used teaching strategies included lecturing on their specialist topics, up to eight times a year. Most stated that they had attempted to be interactive in their teaching, even during lectures. Few simply read from their lecture notes. Most facilitators therefore had several lectures stored in their memories. As Charlotte indicated, a key word acted like the on switch on a tape recorder and the lecture was played.

A similarly directive approach was taken with process interventions. Directive conventionalist facilitators gave the students clear instructions on running the sessions and would take over the chair if the session was not proceeding according to their plan. Sometimes the instruction was disguised and presented as if were an option. Angela, a community lecturer, had developed this strategy particularly well, using phrases such as ‘Can I suggest you do this . . ?’, ‘You don’t mind if I tell you that .?’, ‘Do you think that’s the right way to do it . . . wouldn’t . . . be better?’ Her team did not argue and invariably followed her suggestions.

Time Wasting?

Directive conventionalist facilitators were not perceived as members of the team either by themselves or by the students. They rarely took part in the initial discussion of the trigger material. I asked facilitators how they handled the early phase of the introductory session when the students were given the trigger. The following reply from Gordon was typical of facilitators who had adopted a directive conventionalist approach.

They usually waste a lot of time discussing, well it’s more chatting really, about the trigger and what they think’s going on. If it goes on for too long I usually give them a cue, just to get them started.

'Not wasting time' featured strongly as a principle in the directive conventionalist approach. One facilitator in the study (and at least two who were not participants) felt that the whole PBL strategy was a waste of time. Ewan's approach conveyed the message to his students that unless they were following his directions they were wasting his time. The time being wasted was facilitator time, not student time. The same teachers complained bitterly about students in lectures or clinical skills sessions who either became restless or left early. The concern with time and its wastage may have been responsible for Ewan and Andy's behaviour in intervening soon after the trigger material had been given out. I asked Gordon how long was 'too long'. Again his reply was representative of other directive conventionalist facilitators. 'Too long is when it starts to feel uncomfortable or people are getting fed up'. The findings from the data indicated that 'too long' in directive conventionalist terms was between 90 seconds and two minutes. Where other approaches to facilitation had been adopted, students often spent 20 minutes or longer in the initial discussion of a trigger. The issue of being 'fed up' and having time wasted, was the facilitator's feeling rather than the students'. Kelly, an adult branch student talking at the end of the CFP, pointed out

It takes a wee while to read the trigger, especially if it's got unfamiliar words in it. I like to look them up, so that I'm clear what I'm supposed to be looking at. I'm maybe a bit slow because often he [Andy]'s started [the discussion] before I've got my head round it.

This student, who was typical of the cohort, felt that she was in some way at fault (slow) because she had not fully assimilated the material before the facilitator had started the session. The facilitator did not recognise the length of time needed for students to read and understand the trigger and to reach a collective understanding.

If a facilitator decided to intervene before the discussion had fully developed and the students themselves had started to identify issues to be explored, as directive conventionalist facilitators often did, the process became disrupted, with students ceasing to participate in the PBL process. The situation was compounded if the facilitator had not been following the discussion closely or had not subscribed to the shared meanings of the trigger developed by the student team. Facilitators who adopted a directive conventionalist approach were more likely to interrupt students whom they felt were straying from the issues raised by the trigger. Jean, a learning disabilities lecturer, made this comment about her first PBL team

You've got to keep them on track, keep them focused, otherwise they can go off up a siding and it's just a dead end and a waste of time.

As a learning disabilities nurse, Jean had had experience in allowing people time to fulfil their potential. With her first team, however, she had concerns about time being wasted. Although adopting a directive conventionalist at this point and anxious about time and how it was spent, Jean did allow her team some time for discussion before directing them back to the scenario. Andy, in contrast, intervened very quickly. He felt that he had to keep 'filling the gaps' if the students did not say anything as his perception was that they had missed vital content. This unwillingness to allow students the opportunity to think about the issues and phrase questions was another facet of the directive conventionalist anxiety about 'wasted time'. It was linked to previous experience where the amount of time permitted for students to discuss material was controlled by the teacher.

Cue Consciousness

The directive conventionalist approach was associated with a strong interest in the content which the students were expected to learn but a lack of interest in students as

individuals. Facilitators who had adopted a directive conventionalist approach seemed reluctant to engage with the students. Students, however, valued facilitators who appeared interested in them and enjoyed 'teaching'. Non-verbal communication, such as smiling and eye contact, was cited by students as evidence of interest. In addition to perceiving non-verbal communication as an expression of interest, students became adept at reading facilitators' body language and following the signals as an indication of progress. Nods, smiles and noises such as u-huh, mm-hum encouraged students to proceed with a line of thought. Frowns or a lack of response provoked a change of topic or silence. Often non-verbal communication was used to keep students in discussion when the facilitator felt that spoken encouragement might disturb the process. Most facilitators agreed that students developed cue consciousness (Miller and Parlett, 1976). Meg, a facilitator with a background in adult nursing, disagreed.

I try not to give them [the students] any cues at all. If they do manage to get into a discussion, I don't give them eye contact. I listen, but I look out of the window or something. Half the time they misread my non-verbals anyway. They keep thinking I'm annoyed with them when I'm not.

Despite Meg's claim not to use non-verbal cues, her body language still gave messages to the students. By trying not to use non-verbal communication she gave the students the (wrong) impression that not only was she not interested in what they were saying, but that they had offended her in some way. Meg wanted the students to be uninfluenced by her and to interact with each other. She did not want to take on the role of leader, hence her decision not to look at them directly. In the first cycle of the research she was uncertain on how to achieve this. Her uncertainty had been conveyed to the students who, in turn, were uncertain as to what had happened to cause her behaviour. Meg experiences subsequently led her to develop an alternative approach that included use of non-verbal communication.

Students frequently cued in to non-verbal characteristics such as voice tone. Gordon had a particularly expressive voice tone that students were quick to use as guidance as Cara, - a mature adult branch student pointed out

If, ken, he [Gordon] says something ye've (you've) jist (just) said and his voice goes doon (down) at the end, ye ken ye're wrang (you know you're wrong). If it goes up like a question, ye ken tae say mair (you know to say more). If he soonds (sounds) like he's laughin', ye ken ye're right but mibbae (perhaps) no' got the right words.

Gordon often used echoing of students' comments to highlight items that he thought required further discussion. The students could judge from the manner in which the comment was repeated whether it was worth exploring further or abandoning. Cara was not offended when Gordon sounded as if he was laughing. She interpreted it as being right but using lay terms. When the students identified the latter cue, they would rephrase the comment, often after reference to textbooks. In the directive conventionalist approach, non-verbal communication was most commonly used to reinforce positive responses such as when the students were discussing or presenting material that the facilitator wanted them to focus on. If the discussion shifted to another topic, which was not favoured, directive conventionalist facilitators tended to intervene with spoken comments.

Effect of the Approach on Students

The degree of interest in students linked closely to the manner in which facilitators dealt with frame factors. Facilitators who had adopted the directive conventionalist approach tended to view frame factors as irrelevant, for example Charlotte, an adult branch facilitator, commented

I don't encourage that sort of thing at all. It's got nothing to do with what they're meant to learn, so I tell them to leave all the emotional baggage at the door when they come into PBL.

Not becoming involved with emotions was a feature of nursing in the 1960s, 1970s and early 1980s, the time when most of the facilitators had been in clinical practice. As identified with teachers from a mental health background, practice habits were difficult to shed. Charlotte's attitude to frame factors may have been a consequence of this. Other directive conventionalist facilitators felt similarly but recognised that students found it difficult to put unresolved issues out of their minds. Frame factors could permeate the PBL session and prevent the students from engaging with the PBL material. Several facilitators set strict time limits, usually 10 minutes, for discussion of topics not associated with PBL. Frame factors were not actively sought, merely tolerated for the set time.

Students also interpreted questions related to their experience of the programme and how they were coping with course work and practice placements as a sign of interest in them. Directive conventionalist facilitators did not ask questions of this type. Nor did they encourage students to link the content of the PBL trigger with personal experience. Although narrative was a feature of the other three approaches, the directive conventionalist approach made little use of this element. Only facilitator narrative was permitted and then only rarely. Narratives were usually short, giving a brief outline of an incident from the facilitator's clinical experience, which illustrated the topic under discussion in context, often linked to information giving rather than being truly narrative. Students were not encouraged to tell of their own experiences even if they had had clinical placements in a relevant area or had had a related incident in the past.

Analysis of the data showed that directive conventionalist facilitators tended not to listen to student discussion unless the topic had been identified or approved by the facilitator. Students whose facilitators had adopted this approach were not given time to work through the material and thus failed to create the shared understanding necessary to full exploration of the trigger. Directive conventionalist facilitators tended not to listen to the students' discussion and often introduced their own topics, topics that the students had not raised. This created disjunction. Linda, a first year student in Gordon's team, tried to explain the feeling

Sometimes it's like he's on another planet. We'll be talking about something and then he'll say 'you need to look at . . . and we're like 'What???'

Linda stated that her team began to talk only to be interrupted by a facilitator who was working to a different agenda. The topics introduced seemed to be so far removed from the students' perspective that they might as well have come from another world. Silence was a common response to this type of directive question, particularly when a particular student had been targeted. Heron (1989), in his study of facilitation, described the use of questions to shape the discussion towards a desired goal. Heron questioned for whom the goal was desirable, the facilitator or the student. In the directive conventionalist approach most of the goals were decided by the facilitators according to their agendas. Initially this was accepted by students, particularly students who were new to the programme and hence PBL. In feedback sessions questions were used to test the extent of the students' knowledge. Very often the directive conventionalist facilitator expected one specific answer. 'That's not what was in my head' was said by one novice facilitator in response to an acceptable answer. This reply indicated to the student that although the answer apparently was not

incorrect, they had to participate in a game of 'guess what I'm thinking' before the process could move on.

Most nursing students come directly from secondary education or through access to nursing courses at further education colleges and thus are accustomed to teacher-centred approaches. It appeared that, in early exposure to PBL, it was easier to follow the facilitator's lead rather than take an independent stance. Jean, who after a year of facilitation was beginning to move away from a directive conventionalist approach, highlighted this characteristic

At the beginning they indulge in teacher-pleasing strategies. It's difficult to get them to see that they can take it where *they* want to.

Students with directive conventionalist facilitators were not encouraged to develop issues other than those raised by the facilitator. Jean felt that the students did not recognise that they could raise other issues or that teachers who persisted in being directive were not encouraging them to develop independent learning skills. This could lead to disillusionment with PBL, as Charlie, one of my personal tutees told me during his first year

When you gave us that session [Introduction to PBL] in the first week, I thought it sounded really good, that we'd get to, to look at stuff that we wanted. But it's just the same as college - do what we say.

Charlie felt cheated. He recognised that what he wanted to study was not always what teaching staff wanted him to study and had been anticipating some freedom in his learning. The directive conventionalist approach of his facilitator led him to perceive PBL as just another authoritarian strategy.

As the programme progressed and students discussed their experiences of PBL with each other a change took place. Students who had developed confidence in themselves and the PBL process appeared more reluctant to have topics forced on them. As they became more experienced in the PBL strategy, particularly in the Branch programmes, many students challenged or ignored the facilitator's goals and developed the issues relevant to them. They adopted a variety of strategies. Some remained silent. Unlike the first year students they did not engage with the facilitator's agenda as they did not answer any questions. Even if the facilitator had raised a number of topics, the students left the facilitator no option but to return to the students' issues when work was being allocated. Very few facilitators were so directive as to allocate specific work to individual students.

Some students ignored the suggested topic and continued with their discussion of their own topics. Again facilitators could do little other than go along with the students. A third tactic was to ask the facilitator questions that prompted the giving of a tutorial. Two of the adult teams in the study were particularly adept at the last strategy. When I raised the issue with them they laughed and said that if the facilitators really wanted to talk about a particular subject why should the students not encourage them to do so. In the third option facilitators had to ask students to select their own issues for further exploration as the students were quick to point out that they had just been taught about the facilitator's issues. All of the strategies were successful from the students' point of view as they resulted in the students being allowed to select their own topics. In extreme situations the students stopped attending PBL on a regular basis, disrupting the development of the topics identified. The students' strategies were

more in keeping with the student-centred, self-directed learning philosophy of PBL than the behaviour demonstrated by the directive conventionalist facilitators.

The students in Ewan's first adult Branch team began to find his approach 'really irritating' as they progressed. They felt they were being told what to do and prevented from developing the discussion for themselves. Tam, one of Ewan's Branch students, summed it up for the team

We dinnae (don't) mind that he wants tae (to) tell us stuff, like. But if he'd jist (just) wait until we'd had wir (our) say and then dae (do) it.

As students new to the programme, Tam and his peers expected that sometimes they would have to follow instructions. They felt, however, that by the Branch programme they had the potential to develop their own ideas and were being prevented from doing this by Ewan, who did not take the time to listen to what they wanted to say. If he had listened, there might not have been the need to tell the students what to do. There were other problems with the team / facilitator relationship as highlighted by Joanne, a team-mate of Tam's.

He gives the impression that he just wants to get it over as quickly as possible. Half the time he manages to wriggle out of the review sessions.

The students felt that Ewan did not want to be with them. On one occasion his team brought me the recording of their session as Ewan had not only not attended but had told them he would not arrange another facilitator. Joanne's comments were backed up by the data. Ewan's behaviour was in direct contrast to several of the other teams who tried to convince facilitators that the review sessions were unnecessary, usually with little success. Ewan's attitude may, once again, been linked to the desire not to

waste time. Telling students what to study was much quicker than allowing them to identify their own issues.

Unlike Ewan's teams, who stated that they found his approach unhelpful, Andy's teams appeared unwilling to criticise Andy's facilitation. This may have been due to the authority the students perceived him to have within the School. Someone with such a high profile surely must be right. Challenging Andy was perceived to carry risks for adult branch students in particular. He had control over student issues such as extensions for essays, clinical placement exchanges and compassionate leave. Maintaining the *status quo* may have felt safe and avoided the need to do too much thinking for themselves. However the dissatisfaction exhibited by students in other teams made this latter reason less likely.

Despite the students reporting increasing dissatisfaction with facilitators who were directive conventionalists, only Andy and Ewan continued to adhere to this approach. Although both stated that students should be allowed the freedom to develop self-direction in learning, neither was prepared to empower students to do this. This appeared to be linked to past experience. Andy and, in particular, Ewan had worked in environments where they were outnumbered by women. Davis (1995) claimed that the feminist movement of the 1970s had by-passed the nursing profession where the 10% of workforce who were male occupied 60% of the top jobs. Male nurses were thus authority figures, in control and directing the women. Ewan and Andy were accustomed to being in control. An attitude that was transferred to their beliefs about the role of the teacher.

Conclusion

The directive conventionalist approach was the initially approach by the majority of novice facilitators in the study. The approach had similarities with previous teaching styles and therefore was tested and comfortable. Many facilitators in the study had joined the first *tranche* of facilitator training because of dissatisfaction with existing teaching and learning styles. As they became accustomed to PBL, they sought to change their approach to facilitation to one that was closer to their expectations of PBL. One example of this, the liberating supporter approach is presented in Chapter Eight.

Chapter Eight: Findings (2)

THE LIBERATING SUPPORTER APPROACH

Introduction

The liberating supporter approach is presented in this chapter using interpretive analysis of the data to afford an illustration of the approach in action. The adoption of the approach by facilitators at various points in their development is discussed as is the impact of the approach on student teams.

Characteristics of the Approach

The liberating supporter approach was characterised by minimal intervention by the facilitator, either to elicit content or to guide the processes within PBL. Within the limits of the trigger, the students were free to decide on their own learning, in terms of both the content and learning method. Facilitators were used as resources to support the validity of the learning and check the reality of application in practice. Although there was an emphasis on encouraging students to acquire self-directed learning skills, the overall purpose of the learning was focused on content and learning of facts rather than the skills for learning in their own right. Facilitators adopted this approach least often. It was, however, the approach to which most facilitators aspired, at least in their initial experience of PBL. Maudesley (1999) and Mifflin *et al* (2000) reporting on problem-based medical curricula, stated that many teachers believed that facilitators should not intervene in the PBL sessions to assist or guide students as this was not part of the role. The student-centredness of PBL was equated with ‘teacher does nothing’. The majority of facilitators at the start of the study expressed a similar belief.

It [PBL]’s about getting them [students] to think for themselves. To look at the triggers and think ‘What do I need to know about this, what do I know, what should I learn?’ It’s not about telling them, keeping quiet. It’s a bit like clinical teaching - you show them the patient and then say ‘Right, what are you going to do and why?’, then letting them get on with it.

This comment from Lily, one of the child branch teachers, characterises the dichotomy which new facilitators thought that they faced. On the one hand, PBL is student-centred, therefore the decisions about learning are made by the student. On the other facilitators have to 'get' students to think for themselves without 'telling' them. The comparison of PBL with clinical teaching did not hold up under scrutiny. The clinical teaching role did not expect that the teacher remained silent. Students were not left to 'get on with it', but worked under the close supervision of the clinical teacher. Students were encouraged to work through problems presented in patient care, but they were expected to do this in a problem-solving manner, drawing on previously taught theory rather than identifying what they needed to learn for themselves.

Rather than deriving from clinical teaching, the belief among participants in this study that facilitators should remain silent appeared to have originated from the training days with the external consultant. An element in the training had been an exercise on disjunction, the feeling of becoming completely 'stuck' in learning with the learner becoming aware that she does not know what to do or how to act (Savin-Baden, 2000). Disjunction had been a new concept for the Kingarth teaching staff. All were familiar with dysfunction in groups and had developed a range of strategies and systems to deal with it. As none of the teachers was familiar with disjunction, the external consultant set up an exercise to create feelings of disjunction in the trainee facilitators. The exercise simulated a PBL seminar with the consultant as facilitator and the would-be facilitators as students. The facilitator's role in this exercise was to increase the students' feelings of disjunction. One of the strategies used to achieve this was for the facilitator to remain silent for much of the time. The exercise worked

very well, as the 'students' became increasingly frustrated. Although participants recognised that the situation had been set up, that disjunction was unproductive and that the 'facilitator's' actions had been less than helpful, most still seemed to believe that keeping quiet and not intervening equated with a student-centred approach.

The Approach in Action

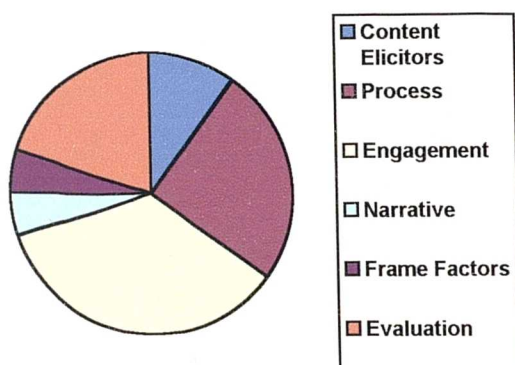
The concept that student-centredness equated with tutor inaction led most facilitators to attempt a liberating supporter approach at some point during the period of the study. Only two of the eighteen participants, James and Mike, adopted and maintained a liberating supporter approach throughout. James had several years' experience of nurse education, both as a clinical teacher and as a nurse teacher. His teaching remit lay with the learning disabilities team, although like several of the teaching staff he held a dual practice qualification, and had had clinical experience in both adult and learning disabilities nursing. He tended to be regarded as a loner, who rarely participated in any of the social activities of the School. The students rated him highly as teacher. James described how he viewed his role

My role as a facilitator is, well, it's really prompting the group to look at the trigger. To try to get them clarify what was in the trigger that they needed to look at. I tended to use prompt questions, turning it back on the group. I think I initially give some direction. Then maybe kind of prompt their thoughts on where they're going to get different information, trying to get them to look at things in a different way.

Data from James' session indicated that this was what happened. Students were given ample time to read and engage with the trigger material. Unlike the directive conventionalist approach where two minutes was 'too long', James' teams frequently spent 20 minutes in initial discussion. The facilitator's voice was rarely heard on the tape, yet the students entered into discussion and fed back material of a quality equivalent to that of students whose facilitator used an approach that gave more

direction. Questions were used infrequently. When they were used, they were divergent and open. Very often the questions prompted the students to consider where they had reached and to think about where they were headed. Any questions asked by James were pertinent to the students' discussion. He did not introduce topics, preferring to ask open questions such as 'Do you think you've identified everything?' or 'What exactly is it that you're trying to do?'. If faced by a direct question from the team his response was to return the question to the student who had asked it. The degree of congruence between James' espoused concept and his actual approach is represented in Figure 7.1.

Espoused Concept



Actual Approach

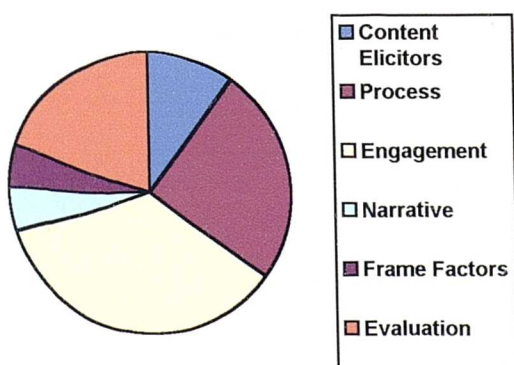


Figure 7.1

James' Espoused Concept and Actual Approach

James adopted this approach from his first PBL seminar onwards. He was clear about what he was trying to achieve with the team, stating that he was reluctant to define things for the students, preferring to encourage them to help each other to reach an understanding. As the teams became more experienced, less time was spent in identifying of issues and more on discussion of the issues identified. Silences were tolerated and did not appear to create discomfort as they were usually broken by the students, rather than the facilitator.

Analysis of the data from audiotapes revealed that there was often a pattern to the progress of the PBL tutorials. The initial part of the pattern was composed of students' talking about the trigger in twos and threes, often in part sentences and often in low voices. This tossing back and forth of ideas seemed to be vital to the students' understanding of the trigger. Shotter (1993) commented that shared understanding is essential if meaningful conversation is to occur. He argued that individuals would hold different perspectives on any given situation for a range of reasons including past experience, life expectations, culture and upbringing. In any situation requiring communication, there needed to be testing of meanings in order that the speakers each held a similar understanding of what was happening in the situation. As much of the discussion was muttered and students tended to talk in two or threes at the same time, it was difficult to transcribe the actual conversation that took place. Figure 7.2 provides a short section from the transcript of a PBL session in the second year. The scenario related to a 47 year-old lady, admitted for a hip replacement and subsequently found to be anaemic (Appendix 9). In this scenario, the facilitator (Meg) did not intervene but allowed the students freedom to work through the trigger.

Sub-group A (3 students)**Sub-group B (3 students)**

<p>Lindsey: She's got a fractured hip? Lesley: No, don't think so Jim: it says here Lesley: yeah, RA Lindsey: Not a fracture? Jim: Anaemia Lesley: from the RA? Jim: dunno Lesley: where's the blood results Lindsey: are they normal ? Lesley: get the book Jim: does RA make you anaemic ? Lesley: how? Lindsey: results aren't normal Jim: Christ, what do all these letters stand for ? Lesley: it says she's vegetarian Jim: That would make her anaemic Lindsey: says on the form, micro-cy -cytic, hypo - chromic ?, pan - pan- cyto -pae- nia Jim: what the hell's that? Lindsey: MCHC -mean cor-pusular haemoglobin concentration Jim: what's her Hb ? Lindsey: 8 Jim: so she's anaemic Lesley: I think we'd worked that out, Lindsey: Hypowhat's it, microthingy - That's iron deficiency <u>(whole team)</u></p>	<p>Marie: transferred, op cancelled, to medical Jen: Bleed in theatre? Marie: no, didn't get the op Jen: Oh Dave: must've come in Marie: yeah, what's in the notes Dave: (muttered reading of notes), menor, menor -hag ... that Jen: menorrhagia ... that's Marie: that menopause thing, that would make her anaemic Dave: yeah, Agnes said in the lecture ... (unclear) Jen: but that wasn't why she came in? Dave: it wis ortho, no' gynae Marie: Did they know about it? Dave: em, em, well it's here ... (unclear) hang on ... medication ... ferrous fumerate ... that's iron isn't it ?, must've ... Marie: yeah, anything else? Dave: Indomethacin Jen: that's for her RA, there was someone in my last placement Marie: doesn't that have side effects? Dave: what? anaemia ? Marie: not sure, have to look it up Jen: what's in the blood results? Dave: need to get the norms Marie: That fits with the menorrhagia Jim: has she got that?, what about being vegetarian? Jen: yeah and the tablets Jim: tablets ? Jen: yeah, we think they've got side effects Jim: what tablets?, iron tablets ? Dave: no, Indomethacin Jim: indo what? Jen: for her RA Jim: oh, Indomethacin (collective groans) Lindsey: so we're looking at several possible causes for... Dave: some of them linked to / Lesley: / her RA Marie: and her lifestyle Lindsey: so we need to look at causes of anaemia, normal values and treatments and how to read blood results. Write that down</p>
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Figure 7.2Pure and Innocent Blood

The students initially began the discussion in two sub-groups, sharing ideas in words and phrases until a clear understanding of the learning they needed started to take shape. When the team had reached the shared understanding that they needed to explore the causes and treatment of anaemia and blood values, they moved on to their potential involvement with the patient as registered nurses. The mutterings and questioning of the PBL students appeared to be akin to Shotter's process of developing shared meanings. If the team were to engage fully with the material presented in the PBL trigger, it was necessary that each member of the team had the same understanding of the trigger.

The excerpt shows the phrases, words and half-sentences that the students exchanged back and forth in twos and threes, then in the larger group as they came to the decision that the issues that the trigger raised for them were anaemia and its causes and treatment with a clinical skills issues concerning normal blood values and how to link them to blood disorders. Even within each of the sub-groups there was more than one line of thought being explored and although it appeared that some questions were raised by one student and ignored by the others, the suggested themes ultimately were intertwined to create identified topics to be explored.

James' belief that the students should work issues through for themselves extended from the understanding of content into managing the team.

If I felt that two or three students were dominating the discussion I might say something like 'What do the rest of you think?'. I suppose I tried to reiterate that the views of everybody were important and remind them of their ground rules. If that didn't work, I would remind the leaders in the group before the next session that they had to have everybody on board. It was very much that the groups have to learn to direct themselves. That's what I see PBL as - developing the group to become self-directed in their learning.

James stated that he might intervene if he felt that two or three students were dominating. The intervention was not an automatic response. The action was designed to involve the others and highlight to the dominant students that the others had an opinion. Ground rules were referred to as a reminder that the team had decided that everyone's views were important. This reminder was reinforced at the start of the next session. James reminded the student chairing the seminar that the views of all team members should be discussed. The responsibility for doing this rested with the team, not with the facilitator. Teams with liberating supporter facilitators had to manage themselves, to decide how to get the work done and how to present their learning to the rest of the team. Liberating supporter facilitators allowed the team to organise themselves and to learn from their mistakes. If a team felt that they had not fully explored a subject or that not all members were participating, they had to sort out the problems themselves. James' statements that his teams were encouraged to take over the running of the sessions themselves were supported in the taped data. He did not intervene in the allocation of work. Students had to decide which questions needed answers and which topic was allocated to which team member.

The only information that liberating supporters provided for students was related to the application of theory to practice. Even when some team members had had experience as care assistants, students still wanted assurance that the material they had presented would match with what actually happened in practice. Sometimes this led them to seek advice from clinical staff, but most often facilitators provided this resource, particularly when students felt comfortable within their team. As students gained in experience with PBL they began to use the liberating supporter facilitators as 'reality checkers', querying how a topic would develop in practice, asking what

being in a situation was really like. Facilitators who adopted a liberating supporter approach answered this type of question directly, providing support for the team about the applicability of material.

Although the liberating supporters among the facilitators appeared to have little communication with students during PBL sessions, students did not seem to feel that this indicated a lack of interest. Analysis of the data indicated that liberating supporter facilitators listened carefully to the students' debate. Any questions asked by the facilitator matched the topic under discussion and rarely led to disjunction. Students with liberating supporter facilitators appeared to be particularly conscious of non-verbal cues as Scott, a first year student in James' team related

We look at him to see if we're on the right lines, but he just smiles and nods, so we know we need to get on with it. He usually sits with his head on one side, I think he's listening. If he straightens up and starts to write something I know there's a point we need to look at more. If he starts to fidget, you know tapping with a pencil or doodling, we're either going round in circles or losing the place...I suppose it might be he wants a coffee break or something . . . I never thought of that 'till now.

James was surprised by the students' observations as he had not realised that the students watched him so closely. He agreed that he did not encourage them to keep talking. By comparison, Jean, one of James' fellow learning disabilities teachers, was not surprised that the students looked for non-verbal cues. She pointed out that the first two or three PBL sessions in the programme ran concurrently with fixed resource sessions on communication. Jean felt that it would have been more surprising if students did not cue into teacher's non-verbal communication when they were being taught how observe non-verbal cues. Jean also said that she deliberately used non-verbal communication when she was trying to take a liberating supporter approach. If

students turned to her as if they were expecting her to provide an answer she responded with an 'over to you' gesture (demonstrated by raising shoulders, extending arms with elbows slightly bent and palms upwards and outwards in the direction of the speaker). Jean had observed that if she spoke at that point, she disrupted the flow of student discussion and often ended up giving a tutorial, which defeated the point of trying to be a liberating supporter. The non-verbal tactics worked for Jean. Her teams usually succeeded in reaching a conclusion without facilitator direction.

James failed to maintain his liberating supporter approach in only one scenario. This was with a learning disabilities branch team. The scenario was one that James had created with the assistance of clinical staff. With this scenario he adopted a directive conventionalist approach, asking directive questions and guiding students towards his own agenda.

In Module 10, the one I was most involved with putting together . . . I think it just demonstrated to me, the more familiar I was with the PBL, the more comfortable I felt with the whole thing. Because even although you know a bit about what to expect and you've got a facilitators' pack etc, unless you've been actively involved in putting it together, it's a bit like going in with someone else's acetates and lecture notes and that makes it more difficult.

James stated that as he had been personally involved in creating the scenario, he felt more comfortable in facilitating it. The data indicated the opposite. James was familiar with the content of this scenario and anxious to ensure that the students recognised all the issues the scenario was designed to trigger. This resulted in his increased use of directive questions to elicit content. Concerns about coverage of material in this scenario may have influenced James and shifted his approach to being more directive. Where his input to the compilation of the scenario had been lower, he

had less investment in ensuring that the trigger was effective in stimulating the intended learning. He was more willing, therefore, to allow the students to develop their own issues from the scenarios he had not been actively involved in creating.

In a later interview I sought James' view on the theory that PBL facilitators should not guide or assist students.

Em, well. I don't think I ever thought that you shouldn't help them. It was more that you shouldn't do it for them. I guess that's the way I work anyway. You've got to help them. Like when we did that thing with [the external consultant]. She didn't help us and we got nowhere.

James had recognised the disjunction exercise as it was intended and had not interpreted it as a role-play of facilitation in PBL. His low intervention approach had developed from his previous teaching style. As a learning disabilities teacher, James had been accustomed to working with small numbers of students. The intake of learning disabilities branch students before the merger had seldom exceeded 12 in either of the former colleges. Although students were timetabled for 'lectures', most learning disabilities teaching sessions included a large amount of student discussion. In these James had developed a technique of giving students information and encouraging them to discuss it in relation to practice. His approach to PBL facilitation had developed from this. He no longer had to give students the material, but instead had to encourage them to find out the information for themselves. The small groups of learning disabilities students had given him experience to support the concept that students were capable of becoming self-directed if given the environment to do so.

Mike joined the School of Nursing and Midwifery during the second cycle of the research. He was the first external teaching appointment, other than the Dean, for several years and as such had a certain amount of novelty value within the School. He

had had experience of PBL in his former institution and was keen to be a facilitator.

Mike's stance on facilitation was similar to James'.

You've got to let them get on with it. Maybe ask a question or two to keep them thinking about all the options, looking at all the angles. Maybe I shouldn't 'let' them go off at a so-called tangent. But who can say that it's a tangent until they've explored it. If it isn't relevant, they'll recognise that and that's learning too . . . well I think it is.

Although he talked about 'letting' students get on with it, Mike made it clear that the students did not require his, or anyone else's, permission to learn. If students were motivated to find out about a subject then they should go ahead and find out about it. He believed that students were unlikely to put effort into learning material for which they did not perceive a use. He suggested that was why didactic teaching methods were not always successful. Students did not want to waste their time learning something that did not appear to be useful. Mike's perception was of students not wasting their own time, a view in opposition to the directive conventionalist opinions about wasting facilitators' time. Even if the students decided to study something that turned out to be irrelevant, the experience would help them to be more critical in the future. Mike asked few questions of the students. He preferred that they worked things through for themselves, asking for help if they needed it. Like James, he often returned questions to the students. Those questions he did ask were of a type that he termed 'devil's advocate', such as 'What would happen if you actually did that? What if . . . happened?'. He was comfortable with silences and actively encouraged his teams to develop to their own ideas. He expressed surprise at how much he had talked on two of the tapes. In comparison to other facilitators he talked relatively little, even in the seminars where he thought he had talked more than was usual.

Mike did not think that his experience of PBL in his previous institution had influenced his facilitation style. 'Naw, I guess it's just me'. The previous institution had used less PBL than Kingarth. Facilitators had no training. They developed the approach as they went along. Mike admitted that he had not previously thought about how other teachers approached facilitation. There had been no facilitator support group. He surmised that some of the teachers in his previous institution would have found it hard to let go, in the same way many of the Kingarth facilitators had found it difficult to relinquish control.

Narrative was a common feature of the liberating supporter approach. Unlike the directive conventionalist approach, most of the narratives came from students. The few facilitator narratives that were offered were similar to those of directive conventionalist facilitators, being brief and clinically focused. These narratives were usually answers to student questions relating to the clinical setting; the reality check. Liberating supporters encouraged students to relate their own experiences, then think about how the experience related to the trigger and how they might act differently in a similar situation now that they had increased knowledge.

Handling of frame factors was consistent with the approach to content elicitation and process intervention. James and Mike were both willing to listen to students' concerns. Requests for solution were met with responses such as 'What do you think you have to do?' or 'How do you think that might be resolved?' Questions about University procedures and personnel, for example who dealt with course work submission or who should be approached for with a request for time off, were answered directly. As with the content and process, students learned quickly. The

longer they spent discussing frame factors, the longer the PBL session took. By the end of the first year time spent on frame factors had decreased. There was slight peak at the start of the Branch programme and again in the second last module. Frame factors at these times were related to course progression and clinical experience. To provide maximum flexibility, PBL sessions were always scheduled for slots before lunch or as the last activity of the day. Students could not claim that they had another class to attend. Any overrun came from the students' own time. Mike pointed out that it did not matter to him how long students took to get round to the trigger. They would learn quickly that the work had to be done eventually. Neither Mike nor James had concerns about wasting time. The time was allocated to the students to use as they felt was appropriate. Teams usually had at least one member with a motive, such as childcare or transport, for keeping the team to time. There also appeared to be a general recognition that individual concerns were not part of the PBL team remit and therefore should not be allocated too much time.

The belief that facilitators should remain silent and not intervene was not expressed by either Mike or James. Both stated that students should be allowed the freedom to explore the material and the issues raised, but that facilitators needed to ensure that students challenged each other and did not simply deal with the issues at a superficial level. James and Mike each demonstrated theories-in-use that matched their espoused concepts. They felt comfortable with the approach and believed that it promoted lifelong learning skills in the students. The lack of conflict between beliefs and actions was a contributory factor in maintaining consistency with the approach. Before becoming a PBL facilitator, each of these two liberating supporters believed that although learning was an individual process, students could be assisted to learn.

This stance was congruent with their perspective on PBL which was that students should decide on their own learning and should be encouraged to be self directed learners: teachers have a role to play in developing this. Unlike many facilitators who claimed to aspire to a liberating supporter approach, the two facilitators who consistently practised a liberating supporter approach had not adopted the approach as a result of espousing new theories about facilitation, but as an application of their pre-existing theories about student learning to PBL.

As mentioned above, the liberating supporter approach was the one to which most facilitators aspired, attempting to adopt it at least once during the study. Many of the other facilitators in the study claimed to hold concepts similar to those of James and Mike, however the transference of the concept into practice was different. The claim was that students could not become self-directed if teachers kept talking. The two liberating supporter facilitators did not believe that they should keep quiet and not help students, yet said less than the facilitators who stated that part of facilitating PBL was to keep quiet. While James and Mike agreed that students should be encouraged to take responsibility for their own learning, several of the other teachers indicated that they were responsible for the students' learning and would be to blame in some way if students did not learn. It took time for teachers to realise that students required some form of support to become self-directed. Apart from Mike and James, only one other facilitator, Meg, succeeded in maintaining this approach over any length of time. Meg had a clinical background in adult acute nursing and had come into nurse teaching some eight years before the start of the study, by 'direct entry' in that she had not previously worked as a clinical teacher. Despite saying that she 'hated small group work' and that 'the thought of students finding out what I don't know scares me

rigid', Meg was one of the main supporters of PBL within the School. Meg adopted a liberating supporter approach with the last two modules of her cycle two branch team. She had only been able to adopt the approach consistently because of the students whom, she reported, got themselves organised quickly, perused the trigger, discussed it, and presented some 'really good stuff'. Meg stated that her input was restricted to sitting and listening, joining in than facilitating. She had given some encouragement but thought that overall the students had done it for themselves.

Parts of Meg's statement matched the data. The students did seem to be well organised and adept at identifying their learning needs. However they had not acquired these skills by chance. The data from the series of PBL sessions indicated that Meg had encouraged her team to take responsibility from her first contact with them. She told the students in the first branch module that they would be expected to take responsibility and then allowed them to do so. The team was given ample time for discussion of the trigger, silences were tolerated and students began to challenge each other in feedback sessions. Meg's intervention became progressively less until in the last two modules she reached the point where, as she described, she sat and listened. In the transcripts of the same sessions for Andy's team, which lasted approximately the same length of time, facilitator interventions by Andy covered three times the number of pages that Meg's interventions did. Although Meg gave her team the credit, she had given them the support and freedom to become self-directed.

The liberating supporter approach needed to be consistently applied to be successful. Five students in Meg's team (ten in total) had had James as their facilitator in the CFP. This core group continued to model the processes they had developed with

James. The others in the team quickly followed suit, perhaps making it easier for Meg to adopt and maintain a liberating supporter approach. James stated that his teams were all good. Each team, however, displayed different characteristics. His first cycle team were fairly quiet with two students who had good leaderships skills; the second cycle (branch) team were more argumentative and less organised; the third cycle (CFP) team were noisy, boisterous and took longer to gel than the other two teams. Nevertheless, all three teams responded to minimal intervention, developing self directed learning skills and becoming increasingly confident in presenting material and challenging each other. James spent most of the introductory session of the first PBL session of the programme with each team, asking the students what they thought PBL entailed and prompting them to set ground rules. The information from the introductory lecture on PBL and the PBL handout were used as trigger material. James reiterated that his role was not to control the team or supply information. He was there to help them to learn, to support, encourage and give feedback. Neither students nor facilitator had unrealistic expectations. The discussion provided students with a shared understanding of the PBL process which allowed them to benefit fully from the strategy.

The Approach Mis-applied

The liberating supporter approach was not always successful. It did not operate well when applied intermittently by facilitators who normally chose a different approach.

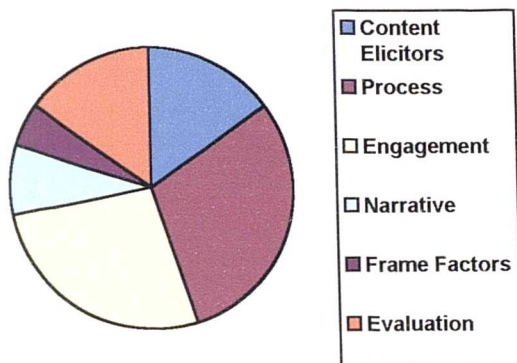
Gwen, with fifteen years in nurse education behind her, commented in frustration

I've tried sitting back and letting them talk, but they don't get anywhere. They keep looking to me to guide and help them. I'm good, I know I'm good. That sort of approach just doesn't work with nursing students.

Gwen's position in the School carried a great deal of authority with the students. Part of her role involved giving information about what students had to do to stay on the programme in terms of assignments, clinical placements, discipline and in dealing with student-related problems. She was not in the habit of sitting back and listening to students talking. When Gwen was with students, she did the talking. Her manner was authoritarian. Few students argued with her. They expected that Gwen would tell them what to do and that if there were difficulties she would sort them out. Being with a non-speaking Gwen was unnerving for the students. This led to her belief that PBL did not work. Gwen's comment indicated that she was successful in her facilitator role and that any perceived lack of success in PBL could not be blamed on her. The fault lay with either the PBL strategy or the students. Analysis of the data from Gwen's PBL seminars and interviews suggested that she wanted the students to be dependant on her, encouraging them to seek her help, for example 'don't worry I'll help you, I'll just give you a wee bit of a hand here and try and make sense of it for you'. Gwen was reluctant to describe her approach. She stated that she saw the role of the facilitator as being to encourage the students to explore their own thoughts, their own knowledge and their own needs related to learning on the topic area they were given to study. When I asked her how she achieved this she gave only a brief response about herself, claiming to probe and 'gently draw in' students who were holding back but then talked at length about a situation where a team had divided into two groups: students who had care assistant experience and students who had not. The team did not work well together. Gwen gave no indication of how she dealt with this situation. When asked again about her interventions she gave another example of the team's inability to work together but no indication of her own activity in trying to facilitate improved team working. None of the situations referred to had taken place in sessions

that she had taped. She stated that she had decided to be less directive with her branch team, which suggested that she had been directive with the first team but that this had been unsuccessful. In talking about the branch team she referred to her position, claiming that this had influenced her relationship with the students as they already perceived her as an authoritarian figure, not a facilitative one. Data from the interview indicated that she had made little attempt to change this perception.

Espoused Concept



Actual Approach

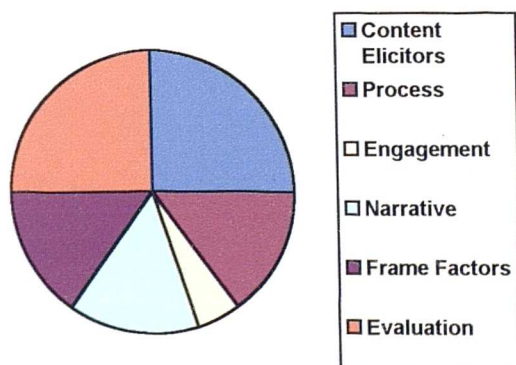


Figure 7.3

Gwen's Espoused Concept and Actual Approach

Although Gwen claimed to want to be less directive, she still felt that she had to ‘get’ the students to do things and to cover the ground to meet her expectations of what students should be learning (Figure 7.3). She described one last attempt to adopt a liberating supporter approach

I had been very directive at the start of the trigger [a care pathway] saying ‘put this here, put that there’ . . . they did this and then decided they would do one for themselves and they were doing well and I thought they were really on a winner so decided at this stage to leave them as I had another pressing thing to be seen to, to leave them for half an hour . . . which is what I did . . . and went back and they hadn’t moved an inch. What seemed to be clear wasn’t clear and they’d had to go back and look at it all again. They’d really been challenged. On reflection, leaving them was the best thing I could have done, although I shouldn’t have. I obviously don’t challenge them enough. I’ll have to think about that.

Gwen recognised that the team had engaged more with the material in her absence than in her presence. The team had identified issues that they had missed under Gwen’s direction. She felt that the team had ‘been challenged’ but stated that they ‘hadn’t moved’ when they seemed to have become aware of a lack of understanding. Gwen recognised that the team had developed their thinking in her absence, which she stated had been a positive action on her part, yet she still felt that it was something that she should not have done. As a result of the experience Gwen was considering ways in which she could challenge her teams. She did not recognise that the challenges had taken place without her and that perhaps less input might lead to PBL working for nursing students.

Evaluation

In the CFP, any evaluation by facilitators and students concentrated mainly on the team’s ability to identify issues from the trigger and to present material relevant to the given scenario. In the branch programme the emphasis was on exploring the evidence

related to the issues, looking for alternatives and justifying the choices for improved intervention. Students with liberating supporter facilitators were prompted to think about the quality of the material and the discussion in the feedback sessions for themselves.

James related

Initially it was a case of head to the paper and just reading the notes but they very quickly realised that they come across things they hadn't understood and that the group wouldn't understand. So very quickly they became aware of having to explain things and having to explain the application to the trigger.

James had clarified at the start of the programme that the facilitator was not going to provide the answers. The students realised that simply locating the material was not enough, they needed to be able to explain it to the rest of the team. They were the ones who had to have the answers for each other. The students realised that the quality of the feedback and their subsequent learning depended on what they brought to the seminar. The students themselves began to judge their performance in the session not only what they had or had not learned and also on what they had failed to identify. Part of the evaluation included consideration of any topics that might have been omitted. Only when the team felt that they had exhausted the possibilities did they consult the facilitator.

Effect on Students

As the teams progressed they took over the role of facilitator themselves and began to use the facilitator as a reality check. This excerpt from one of James' PBL session gives an example of students taking on the facilitator role

Liz: I get the impression that you were finding it difficult to see what was going on?

Karly: No, I'm tired . . . it wasnae really . . .

Liz: I feel that you're finding it difficult to find out what's going on?

Karly: No, it's just the way it's written

Liz: That's to make you think about the different things involved.
Kay's making a joke - Angus came in with a cut hand.

Karly: Aye, but could they no' just hiv pit it doon like that? [not just set it out that way?]. What would you dae [do]? I think they're hiving us on [pulling our leg] . . . the people that write them.

In this session, one of the students (Liz) had identified that another (Karly) had not achieved the shared understanding needed to engage with the material. The trigger was a cartoon story board depicting a small boy with a cut hand brought to an Accident and Emergency Department by his mother (Appendix 10). The style of the drawings suggested that there were sociological issues to be addressed in addition to treatment of the cut. It appeared that Karly had not identified these issues and Liz was trying to help her. Although it seemed that Karly did not appreciate the help, she had been made aware of the need to consider issues other than the cut hand and had been included in the team's shared understanding of the trigger material. Rather than expect James to recognise and deal with Karly's bewilderment, Liz had taken on a facilitative role.

In the second example the students have learned to play James at his own game.

Marlene: have we covered it all?

James: what do you think?

Marlene: no, what do you think? - we want to know, would it happen like this in practice?

When James returned the question to the students, they simply handed it back to him as they had an issue that could not be fully resolved by theoretical resources alone. James was being used as a 'reality check'. The students knew that their experience in practice was limited. They had access to someone who had extensive clinical experience and they intended to make full use of him. Although they accepted that they were expected to seek information for themselves, they felt that they could ask

for help with practice issues that were not written about. Facilitators who adopted a liberating supporter approach answered this type of question directly. Mike pointed out that some questions, such as what actually happens on an acute ward or what does it feel like to pack a wound, could not be answered from the literature and therefore, the students deserved a direct answer.

Conclusion

In addition to encouraging identification of learning needs related to content, the liberating supporter approach allowed students the freedom to develop self-directed learning skills, team working and self-evaluation skills. The approach was most successful when used consistently with student teams. Facilitators adopting the approach did not consciously set out to keep quiet and not to intervene, rather they provided the necessary support for students to take responsibility for their own learning. In contrast, the third of the approaches, that of nurturing socialiser, employed a large quantity of talk in facilitating students. This approach is illustrated and discussed in Chapter Nine.

Chapter Nine: Findings (3)

THE NURTURING SOCIALISER APPROACH

Introduction

This chapter presents the nurturing socialiser approach, identifying the supportive and valuing aspects demonstrated by facilitators who adopted the approach. The students' response to being facilitated in this way is illustrated from the data. The characteristics of facilitators who adopted this approach and their ability to maintain the approach are discussed in relation to the overall transitions made by teachers in developing facilitation skills.

Characteristics of the Approach

The nurturing socialiser approach was student-centred, nurturing and supportive. It was characterised by a large volume of talk from both facilitators and students. Although nurturing socialiser facilitators talked copiously, they allowed students to talk at length too and listened attentively to the discussion. Nurturing socialiser facilitators did not follow their own or the School's agenda with respect to content, but were cued into the topics raised by the students. The rationale for adopting this approach was linked to a concept of nurse education that reflected the work of Bevis (1989). Bevis claimed that in order for nursing students to adopt a caring ethos towards patients, they should have experienced the same ethos from teaching staff towards students during their education. The term given by Bevis to this caring attitude was 'nurtrance'. One of the basic characteristics to be fostered by nurtring (sic) students was critical thinking. In this respect, Bevis' caring curriculum fitted with the PBL philosophy.

Although the nurturing supporter approach valued students, facilitators did try to influence students' values and beliefs in an attempt to begin the process of socialisation into nursing. It was hoped that starting the socialisation process in the School setting would help to minimise the reality shock (Kramer, 1974) experienced by students on entering practice. Attempting socialisation in theoretical sessions was intended to promote good practice. The implication being that in the practice area students were all too easily socialised into poor practice.

In some ways the application of the approach resembled that of the liberating supporter. Nurturing socialisers felt that allowing students to talk without interruption or direction helped the team to develop a bond with each other and with the facilitator. Students' conversation included their past experiences, which provided insights into their background and values. Nurturing socialiser facilitators took the view that the better the students got to know each other as individuals, the better they would work together as a team. If students were permitted to identify issues for themselves and allowed to discuss them, they would realise what they needed to learn and be motivated to learn it. Although facilitators with nurturing socialiser and liberating supporter approaches saw the facilitator role as that of a guide, liberating supporter facilitators distanced themselves from the team as individuals and drew back from engaging with the team processes, whereas nurturing socialiser facilitators almost became one of the team. There were indications that the facilitator-student relationship was co-dependent, as nurturing socialiser facilitators sought positive responses to their behaviour from students in exchange for the nurturing and support. If the expected responses were not forthcoming

or if students decided that they no longer wanted that degree of support, the relationship was disrupted.

The Approach in Action

Although four of the eighteen participants adopted a nurturing socialiser approach temporarily at some point during the study, only two, Karen and Agnes, adopted the approach consistently. Karen and Agnes had several characteristics in common. Both were approaching the minimum retirement age for nurses, both had entered general nurse training at 18 years old and both were sceptical about the value of university education for nurses.

Before becoming a nurse teacher, Agnes had worked mainly in the 'high tech' areas of nursing such as theatre and intensive care units. She had been a clinical teacher for seven years before undertaking a combined degree / nurse teacher programme. At the start of the study she had been a nurse teacher for five years. She was very confident in her work and in her dealings with students. She was enthusiastic about PBL as she felt it mirrored clinical teaching

They [the students] need to have something to pin the theory on to. They get so little patient contact since we moved into the University. This [PBL] is like clinical teaching - you give them the patient and they have to work out what to do for them and tell you why they're doing it.

Well, I think possibly because I've done clinical teaching, that helps quite often, being able to think on your feet and answer any question that comes along. I've said to them, every group I've had, I'm a member of the group too. You will have had experiences that are different from mine and you'll be able to teach me things. If there's something I can help you with, I will. I was so much one of the group that it was easy to help them. I have the experience that I can share with them.

As discussed in a previous chapter, although clinical teaching did require the student to decide on and justify patient care, students worked in a one-to-one situation with the clinical teacher and received a great deal of support. Clinical teachers had a great deal of influence over the students and their practice. The clinical teaching strategy was problem-solving and teacher-centred, with the clinical teacher making the decisions about what had to be learned. Agnes had enjoyed being a clinical teacher because of the individual student contact and saw PBL as a way of regaining that type of student / teacher relationship. She saw her role as answering questions and giving the team the benefit of her experience, reflecting her espoused concept that students should be nurtured. She did recognise, however, that she did not know everything and was willing to listen to what students had to say. The realisation that she could not answer all the questions, despite her lengthy clinical background, and that students might have experiences that she had not, led her to position herself as a member of the PBL team. The placing of herself as a team member was also linked to her desire to engender a comfortable relationship with the students by not setting herself apart as the teacher.

Karen's clinical background lay in the fields of public health and elderly care. She had worked overseas for part of her career. She joined the Ascog College six years before the merger having undertaken a nurse teacher qualification, without having been a clinical teacher. She subsequently had gone on to complete a Bachelor in Nursing degree through part-time study. She took her work very seriously and often agonised over whether or not her teaching was successful. She too was enthusiastic about PBL.

I suppose it's the opportunity to make friends with the students. It's a channel by which you get a feeling for the whole class as well so you're getting sort of feedback from them as to how the whole experience for them is . . . It's something you can't do in a large group when you're faced with a hundred or more in a lecture theatre.

Karen demonstrated a genuine interest in the students. She consistently expressed the hope that they would find their educational experience enjoyable and worthwhile, reflecting her belief that students required to be 'cared for' in some way as well being encouraged to learn. As a teacher, she felt responsible for ensuring that students became well informed and were fit for practice. Although she not worked as a clinical teacher, she enjoyed working with students at an individual level, rather than in large groups. She found the PBL experience rewarding as it provided the opportunity to be directly involved with at least some of the students.

The caring aspects of the approach thus provided a high level of safety and comfort for students. Questions were used less in this approach than in any of the other three approaches. Nurturing socialisers preferred to summarise the students' discussion to reflect its content, often translating it into professional language and highlighting the main issues. Links then were made to fixed resources and clinical practice experience. The style of question used in the nurturing socialiser approach seemed, on first hearing, to be fairly complex. Further examination revealed that the questions, although often lengthy in construction, were, in fact, closed questions requiring a short, factual answer, even on occasion a simple 'yes' or 'no'. Sometimes the questions appeared to have been designed to allow the facilitator to give information without appearing to do so.

This trigger is about an elderly lady, frail, mobility problems, hard of hearing, elimination problems, fussy about her food and anxious about being in hospital. What issues should the nursing staff be addressing?

In this question Karen had 'set up' the answer for the students by selecting from the trigger (Appendix 8) what she saw as the issues and priming the students to select the answers.

Agnes did not set up answers in quite the same way but she also gave an indication of the answer within the question.

The signs and symptoms of a duodenal ulcer are severe epigastric pain, sometimes described as chest pain, sweating, cold, clammy, drop in B/P. How does that compare with this gentleman?

In this trigger the patient had had a myocardial infarction, the signs and symptoms of which were provided in the trigger material (Appendix 11). Agnes gave the students information about a condition which has a similar presentation and asked them to compare the symptoms, so providing the answer within the question, rather than prompting the students to think for themselves about conditions that may have similar signs and symptoms to a myocardial infarction. Questions were also used to recap, summarise and focus for the students.

You've mentioned the need to keep wounds clean, the type of dressing to put on them, how you would decide how serious the wound is. So is what you're really saying that you need to look at wound assessment and aseptic technique?

Although this superficially was a relatively long and involved question, it only required 'yes' as an answer. Again the issues to be addressed have been organised for the students,

who would have had to have been very contrary not to follow such broad hints. Like some of the directive conventionalist approach questions, the material is presented as if the students do have a choice, although in the nurturing socialiser approach the material has been derived from the student discussion and not from the facilitator's agenda.

There was another similarity with the directive conventionalist approach in that the focus was on the facilitator rather than the students. Students were given ample time to contribute to the discussion and the learning outcomes usually were identified by the students, but nurturing socialiser facilitators always contributed expansively to the discussion and almost always had the last word. Even when a topic had been fairly extensively discussed, the facilitator would direct attention to herself by describing her own experience or highlighting another point for consideration. This pattern was consistent across the data. Facilitators had a contribution to make for every issue raised by the students, either to recap or rephrase, to give an example or to add another perspective. Although students were permitted to talk freely and at length, facilitators used their greater clinical experience and more in-depth knowledge to finalise the debate.

Process interventions were often difficult to discern from the tapes. As students and the facilitators were seldom at a loss for words in the PBL sessions and the facilitators provided support and explanation, there was very little disjunction. In keeping with the approach, any dysfunction within the team was talked through, either at the instigation of the facilitator or the team members themselves. Karen and Agnes each stated that PBL should allow the students to manage the team processes for themselves, however analysis

of the tapes from Agnes' and Karen's sessions revealed a position somewhere between facilitation and chairing. This responsive prompter stance allowed the students to have some freedom to explore the scenarios and identify issues but kept the limits of the discussion within teacher control. The facilitator then followed up the discussion with some information on the issues, suggestions about where to find material or on which aspects to focus.

Use of narrative was the essential feature of the nurturing socialiser approach. Both facilitator and student narratives were long and very detailed. Narratives were used more often than questions in both introductory and feedback sessions in this approach. They provided illumination of how the topic under discussion fitted with the 'real world' of practice. The students' narratives gave facilitators insight into students' perspectives on not only nursing but also on life, as narratives were often drawn from experiences that had occurred prior to beginning the programme or which had happened outside the programme. The nurturing socialiser approach was the only one in which facilitators used experiences outside nursing as the basis of narratives, as exemplified by Agnes during the scenario based on the patient following myocardial infarction.

Have any of you seen 'The War of the Roses'? That's what this is like. You know you've got this chap and the staff are all arguing about what wrong with him (10-minute resume of the film). There's a very strong relation between the heart's workings and indigestion and chest pain.

None of the students had seen the film, so could not conjure up the required picture of Michael Douglas with chest pain. The story line of the film, however, did provoke several accounts of the stressfulness of divorce, which Agnes then incorporated into a

discussion on the causes of myocardial infarction, demonstrating her skill in returning students to the main focus of the seminar and allowing her promote the importance of holistic care and the influence of personal circumstances on illness and recovery.

Supporting and Valuing Students

As novice facilitators, Karen and Agnes had aspired to minimal intervention. After their first three or four PBL seminars they discarded this approach as being ‘unrealistic, the students need some support’. There was no point in being a facilitator if they did not facilitate. Facilitation meant interacting with the students. After the initial period, neither Karen nor Agnes felt that they were talking too much. Thus, they had no need to adopt diversionary tactics to avoid being pulled into the discussion. On the contrary, Agnes believed that part of supporting and valuing students was to give them attention.

I try very hard when each one of them is speaking to focus on them. Not to gaze out of the window or look occupied with something else but to give them my undivided attention while they’re actually speaking and if someone starts to reply to give them my attention as well. If someone hasn’t spoken at all, then I tend to look at them, usually raise my eyebrows and give them a little smile or a little encouragement and they usually look at me and say ‘what do you want me to say?’

Students recognised that they had the facilitator’s attention and that any contribution they might make would be accepted. Although Karen stated that she did not use non-verbal cues deliberately, her tapes showed that she frequently used positive sounds such as uh-huh, mmhum, usually repeated two or three times. As she also did this in meetings accompanied by vigorous nodding of her head, it seemed likely that she also nodded during the PBL sessions. Yet none of her students stated that they used this positive reinforcement as guidance. This may have been because she gave so much verbal

encouragement, that the students did not need to observe non-verbal cues as closely as students whose facilitators adopted other approaches.

Although students did respond to non-verbal communication, in Agnes' case with a teacher-centred reply, 'What do *you* want me to say?', students with nurturing socialiser facilitators were less cue conscious than students with either directive conventionalist or liberating supporter facilitators. They knew that they had the facilitator's attention. If they became stuck with the trigger material their facilitator would help them. If the students were going off at too much of a tangent, the facilitator would intervene and bring them back on course. A climate of trust developed between facilitator and students. Students with nurturing socialisers experienced less uncertainty about studying the 'right thing' than students whose facilitator adopted a directive conventionalist or liberating supporter approach. Students from James', Gordon's and Ewan's teams all stated spontaneously that they watched the facilitator for signs as to whether or not they were on the right lines. This behaviour was not described by students from either Karen's or Agnes' teams. Attempts to ask their students how the facilitator indicated to them that they were progressing well (or otherwise) consistently brought the reply that the facilitator told them.

In contrast, nurturing socialisers seemed to be more conscious of non-verbal cues than their students were. Both Karen and Agnes stated that the students 'looked to them' for answers. This was partly a figure of speech indicating that the students viewed the facilitator as a likely source of the right answer and also that, although Karen and Agnes

attempted to be friends or one of the team, the students still perceived them as being in authority and as the person who would take the lead. However, there was also a physical turning towards the facilitator which was rewarded by being given the answer. Both facilitators indicated that they used students' facial expressions and body language as indicators of puzzlement or boredom and would intervene with an explanation or offer of a break. Karen explained.

You need to be aware of them, I suppose. A bit like always observing the patients to see if there are any changes that you need to respond to. If they [the students] look a bit lost or start to fidget or whatever . . .

Karen was of the opinion that students, like patients, should be supported and valued to prepare them to be supportive and valuing in practice. Only by being valued, would they, in turn, value others. Although she and Agnes were graduates, they were agreed that a university education was not necessary for nurses and that nursing students needed all the help they could get. School policy stated that academic support was the remit of the personal teacher and that students who required more than minimal pastoral care should be referred to the School's counselling service. Several students, however, preferred to approach Karen or Agnes, knowing that neither would refuse to see them and would provide advice. Although Agnes and Karen both complained that students always seemed to need advice when their own personal teachers were elsewhere, neither refused to see students nor advised them to make appointments with their own personal teachers. Both facilitators stated that all students had something valuable to contribute to PBL from their experiences. Students should be allowed a hearing and to express an opinion without contradiction or ridicule. Treating students with respect would encourage them to treat patients in the same way.

The management of frame factors also demonstrated interest in the students. Unlike the other approaches where frame factors were recognised as being unavoidable and could interfere with the PBL process and therefore had to be dealt with if they arose, nurturing socialiser facilitators actively encouraged students to raise issues. As Agnes pointed out

There's always some unrelated factor to be brought into PBL - whether its something about the timetable or the buses or something that they want to have their little grumble about. Sometimes the 'little grumble' goes on for 10 minutes. Usually one of them stops it rather than me. It gets it off their chests and clears the air.

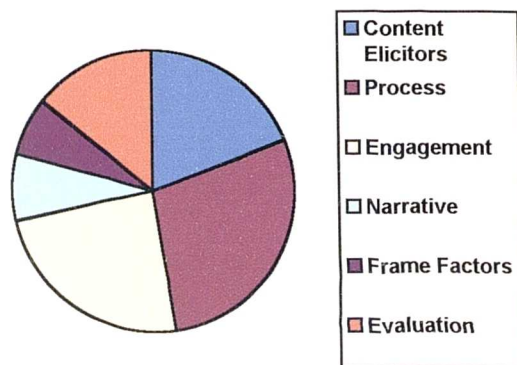
Karen expressed similar thoughts

They always have some sort of difficulty rumbling around in the background. It's better if we know what it is and get it out of the way

The tapes from the seminars indicated that overall the nurturing socialiser approach to frame factors worked. Although the initial discussion could be lengthy, it did appear to settle, if not resolve, the issues and allowed students to devote their attention to the PBL scenario. Initially students were not slow to respond to the invitation to raise factors, which ranged from experiences in previous placements to family troubles. Whereas the other approaches limited discussion of frame factors and either referred the students to the appropriate person or agency or encouraged students to find their own solutions, nurturing socialiser facilitators were willing to give advice and suggest how the problem should be dealt with. Agnes raised the point that she was seldom the person to stop the discussion of frame factors. By allowing other students to end the discussions, she could maintain her supportive stance and continue to be perceived as always being willing to listen. PBL seminars occasionally became counselling sessions with updates on the problems every seminar. Many of the students appreciated this support.

I couldn't have got through this course without Karen. She's really helped me in PBL. I've had some personal problems and she was so supportive.
Joan, enrolled nurse conversion student.

Espoused Concept



Nurturing Socialiser Approach

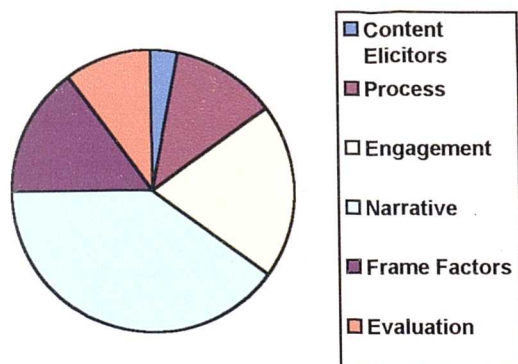


Figure 8.1 Espoused Concept (Karen and Agnes)

Nurturing Socialiser Approach

Instilling Values and Beliefs about Nursing

Both Agnes and Karen believed that they had something to offer students, based on their own experiences. In comparison with the directive conventionalist approach emphasis on the acquisition of content, nurturing socialiser facilitators sought to influence students in way a less tangible than the instillation of knowledge. They sought to instil the values and beliefs they believed made a 'good' nurse. Karen tried to explain

It's not so much about teaching them the hip bone's connected to the thigh bone stuff, but more about the essence of nursing, about being with people. This caring, nurturing, empathy that makes people feel valued. That's what we need to get across.
How much do you influence? . . . because it's not small group work. Where you can manipulate in a small group and say 'right you do this, this and this or you haven't done enough or you must em, em . . . This [PBL] is something much looser where the student has to take charge. So sometimes one does wonder, maybe I do influence too much.

This statement reinforced the desire to instil the nurturing values into the students and the opportunities for promoting personal opinion that could be undertaken with small groups of students. Karen strongly believed that nursing was about caring rather than curing. About being with people, doing things with patients rather than for them. She attempted to carry these values into her teaching and to encourage students to adopt them, but often became despondent and frustrated when she felt that students were not responsive and did not want to be nurtured. Karen suggested that she tried to influence her teams in some way. She talked about 'manipulating' the group, indicating that she used the teaching situation to her own advantage, to make students do what she wanted them to do. However, as she began to recognise that achieving this through PBL required different tactics, her approach to influencing students' beliefs about clinical practice became one

of giving examples of good practice to the students from the point of view of an experienced friend. Peers, she claimed, were often more influential than teachers.

Co-dependency

Karen referred to making 'people', rather than patients or clients, feel valued. Agnes was more explicit,

It's about getting them to realise the realities of nursing. It's much better if everybody pulls together, values each team member and the patient.

Karen indicated that she wanted to make friends with the students, while Agnes had identified herself as a team member. Valuing, for Agnes and Karen was a two way process. By suggesting to the students that 'people' and '(clinical) team members' should be valued, Karen and Agnes indicated that they, as people and team members, should be valued. The approach thus had a co-dependant element: the students were given support by the facilitators and, in return, were expected to value the facilitators by adopting the perspective of nursing advocated to them. Valuing of the facilitators was demonstrated through positive comments on programme evaluation forms and receiving presents from students. Agnes showed me a card that she had received from one of her teams [here's something for your research]. Six of the eleven messages commented on her excellent abilities as a nurse, although, in the conventional sense, she had nursed none of the students.

The facilitator narratives always presented the facilitator in a good light. Agnes was nicknamed 'supernurse' by one of her teams while one of Karen's team commented

I'll scream if I hear any more of her 'Bunty saves the day' stories from Alaska.

This opportunity to tell people how good one had been in clinical practice was another aspect of the co-dependent nature of the approach. Acceptance of the facilitator's view of themselves by the students was exchanged for non-critical acceptance of students' comments. It also emphasised to students that the facilitators had been senior nurses and knew what they were talking about from a practice base in addition to presenting the theoretical angle. Although both Karen and Agnes frequently told their teams that they 'did not know everything', the use of positive narratives acted as a reminder to the students that they, in fact, were experts in their own specific areas.

Effect on Students

Agnes and Karen identified themselves more closely with their teams than any of the other facilitators. Both Agnes and Karen talked about 'my students' and 'my group' and described incidents from the PBL sessions in terms of 'we did' or 'we decided'. Other facilitators talked about 'my team', but 'the students'. Incidents were described in terms of 'I did' or 'they decided'. The use of the possessive pronouns implied that Karen and Agnes and the students had equal status within the PBL seminars. Any breakdown of the PBL process or failure in assignments would carry shared responsibility. No one side could be blamed. In the student focus group interviews, students from Karen's and Agnes' teams did not talk about my / our facilitator but, in common with their peers, referred to 'the facilitator' or used the facilitator's name. Nor did they include Agnes or Karen when discussing what 'we' did. The term 'we' was used to refer only to the students in the team. Facilitators' actions were perceived as being separate and were discussed in terms of 'she did', 'she suggested that . . .' Although Karen and Agnes identified themselves with the students, the students did not identify the facilitator as a student. The students did

not share the ethos of mutual responsibility for the running of the team, stating that team management was a skill that they expected to learn and they would 'take over' this responsibility from the facilitator rather than 'sharing' it.

In the early stages of the programme, students liked the approach

She (Karen)'s very supportive, very helpful. Helps you to see what's wanted. Some of the other teams, they're left to work out for themselves what they're supposed to be looking for. They come up with the same things, like, but they need to put more effort into it.
Collete (Karen's team, CFP)

It's good. I found it difficult to say anything in the group at first, but everyone talks so much and nobody says anything nasty that I don't mind speaking.

Tracy (Agnes' team, CFP)

Both Collete and Tracy mentioned the amount of support provided and how helpful they had found it. Students talked among themselves outside the PBL sessions about what happened in the teams. These two students from Agnes' and Karen's teams appeared to feel that their teams were preferable to some of the other teams who were expected to be more self-directed and to explore issues in more depth.

The nurturing socialiser approach was associated with a high level of engagement with the students expressed through interaction and interest, not only in PBL issues, but also in clinical experiences and the students personally. The amount of talk encouraged, the attention given by facilitators to the students and the uncritical acceptance of any topic raised, led to a feeling of comfort and safety among students and facilitators.

I get a lot of support from my PBL team. At one point I was thinking about giving up the course and then I got a letter, I'd missed a PBL session because I felt that way, and I got this letter from the team saying that they'd missed me and could I look at this stuff for the feedback

session and that they needed my bit. And I felt wanted; it really gave me a lift and made me want to carry on. I knew I could go back and say to them how I was feeling.

Hughie, (Meg's Team, CFP)

This statement from Hughie, a first year student in Meg's team in her nurturing socialiser phase, demonstrated the support that students could give to their peers. The student felt sufficiently comfortable to return to the team and share his experience. Students compared the safety of the nurturing socialiser approach with feelings of uncertainty in other teams.

Jenny, an access course student described the shock of encountering a different approach.

I'd been in Agnes' group in the CFP. She was really nice, you could talk to her and you knew that even if you said something silly, it would be all right. I went into Gordon's group in the Branch. . . . He asks so many questions and gets the others in the group to ask questions. I get dead (very) scared I won't know the answer and the rest will feel I've let them down. I work really hard to make sure I know what I'm talking about and get through my bit as quick as I can.

Jenny (Agnes' Team, CFP)

This comment indicated that although students with nurturing socialiser facilitators felt comfortable and safe within the PBL seminar, they did not always feel prepared for other situations. Val, one of Jenny's fellows in Agnes' team provided another example of the feeling of insecurity in a different setting.

It was like, my second placement and my preceptor; well she was just awful. She kept asking me questions 'Why this and why that?' If I asked her, and it took a bit of doing, asking her anything. God, it was awful. She made me feel really nervous. Anyway I said to Sheila (a student in other PBL team) what it was like and she said she'd had her when she was in that ward and she thought she was OK! I said 'What about a' they (all those) questions? And she (Sheila) said that it was just like PBL and I said 'But PBL's nice'

Val (Agnes' Team, CFP)

Val's use of 'nice' to describe PBL was unusual. Students tended to talk about PBL in terms of good or awful, interesting or boring, liked or disliked. 'Nice' suggested a cosiness and lack of threat but as a student from a nurturing socialiser's team, Val had felt at a disadvantage when encountering a situation less comfortable than PBL. The attempt to socialise students into practice values had not translated into confidence in the clinical area as the clinical areas were rarely as supportive and comfortable as the PBL seminars. Students who were more accustomed to being challenged in PBL seminars did not report difficulty with similar situations as they had little expectation of being nurtured in practice.

Although the nurturing socialiser position had echoes of the liberating supporter approach, let the students get on with it and they'll have to learn to be self-directed, students in teams with nurturing socialiser facilitators did not develop any marked degree of self-direction. The non-threatening climate of acceptance led them to feel that they could put less effort into preparing for PBL than students whose facilitators and fellow team members were more challenging. The material presented in teams with a nurturing socialiser facilitator often was weaker overall in terms of depth of discussion and use of supporting material. Although there was considerable breadth of discussion, most of the depth was provided by the facilitator. Supporting material, particularly in the CFP, came mainly from textbooks or less academic journals such as *Nursing Times* or *Nursing Standard*. Sources such as *Journal of Advanced Nursing* or Internet sites were rarely used. Meg, who demonstrated all of the approaches at some point during the research, provided some insight into the reason for this.

My (third cycle) team were really dysfunctional, dysfunctional as individuals - Jean calls them the 'team from hell' and has told me never to ask her to cover them again. Anyway, I thought that I had been too directive with my last first years and that I would just let this lot talk, seeing as how it worked with my Branch team. Boy could they talk! The problem was - so did I. I let myself get dragged into their conversations which went all over the place . . . and once it had gone I couldn't get it back. No matter what I did, I had lost it, so their feedback was awful. Stupidly I did the same thing with the next PBL. I thought I'd be able to shut up, But no, disaster. I've gone back to being directive with them.

Meg's experience indicated that these particular PBL seminars had consisted of little more than gossip. The students had failed to identify the issues to be explored and therefore had produced minimal feedback. Although neither Karen nor Agnes allowed the discussion within the PBL seminars to diverge from the scenario for any length of time, there were some periods of conversation that bore little relationship to the scenario. Students were eventually returned to nursing issues. Meg lacked the recapping and information-giving question skills that enabled Agnes and Karen to keep the team focused. The acceptance of almost any topic in discussion, however, gave students the message that, equally, anything would be accepted in feedback seminars. The extensive contribution of the facilitators in clarifying issues, rephrasing lay expressions and providing information appeared to have prevented the students from developing self-directed learning skills.

Students who enjoyed the nurturing socialiser style were mostly former enrolled nurses like Joan or students who had entered the course straight from school. Both groups appeared to lack confidence in themselves and their abilities. Joan described her feelings

It's years since I done any study and even then it was just the enrolled nurse course. I look at the things my kids do at school and it scares me. I

never done anything like that. I need to do this course to get on, but all these essays . . . won't be able to do them, I know I won't. I'm all right with the practice, it's the study

Joan (Karen's team, Branch)

Joan had worked in the same clinical speciality for 14 years. She was confident in her clinical abilities. Although she realised that she had to complete the diploma programme to gain a higher grade, she found the prospect of academic work daunting. The non-demanding interest of her nurturing socialiser facilitator (Karen) came as a comfort. Lisa who started the programme shortly after her 17th Birthday commented

She's been like a second mummy to me. I really didn't know if I had the brains to be a nurse, but she's given me the confidence and the help.

Lisa (Agnes' team, Branch)

Although students in the CFP and the early part of the branch programme enjoyed the nurturing socialiser approach, by the middle of the branch programme several students expressed feelings of frustration. As the students gained in confidence some began to find the approach irritating and stifling. Feeling mothered changed to feeling smothered. Carole, also a former enrolled nurse, described the process.

At the start I was so glad I had Agnes as a facilitator. Other people were saying 'Oh we had to do this or that' and they really had to explain what they had found. Agnes, well, whatever we presented back she turned it into what it should have been. I had Meg as my personal teacher. My second last essay, when I went for help she told me 'You're on your own now Carole, you get good marks, you don't need me'. I was really annoyed, but then I thought 'she's right, I can do it now'. I felt confident for the first time since I started the course. But I found PBL really irritating after that, it was all talk but no real substance, no chance to show that you really knew.

Carole (Agnes' team, Branch)

Seminars when the narratives bordered on gossip contributed to the dissatisfaction felt by those students who sought more challenge in the sessions. One of the teams with a nurturing socialiser facilitator began to experience dysfunction towards the end of the

CFP as the students who wanted more challenge came into conflict with the students who wanted the comfortable PBL to continue. Karen reflected on what she thought had happened

I don't know what's happened, they used to work quite well together. They've just disintegrated and I don't know how to help them. One of them said I didn't help them, but I do all that I can. I feel really dissatisfied with the way that it's gone.

The data from this particular team indicated that two or three of the students wanted to take the discussions forward and consider alternative solutions for the scenarios in more depth but were confronted by two others who were concrete thinkers and wanted the one 'right' answer. The 'right' answer could not be obtained from books, only through practice, therefore any attempt to search the literature was a waste of time and effort. Neither seemed to be able to accept that there might be several options, each with its research base. It was easier to continue at a superficial, comfortable level, sharing experiences about did happen in practice rather than seeking to justify what should happen. Karen continued to give the team support and balance the different views but the rift remained until the teams were reconfigured at the start of the branch.

Evaluation of feedback and team performance was always positive, with students being praised for producing any work at all. As indicated above, few questions were asked in feedback sessions by facilitators or students, narrative examples being used instead. However, the lack of constructive criticism appeared to create uncertainty with some students. Agnes described the uncertainty generated in one of her branch teams

. . . my September 97 class, they took to me very quickly and I took to them very quickly and it was a disadvantage because they felt I was so much one of them that I was bound to tell them they were doing fine and

they needed to know that they were doing as well as the other groups and there was a bit of, you know, was I just telling them they were good or were they really doing extremely well.

Agnes herself seemed uncertain as to whether her evaluation of the students was genuine or influenced by her relationship with the team. Again, this reflected the co-dependant nature of the approach. The team had to be doing well because they had the advantage of the facilitator as a team member. Anything less would have been an indictment of the facilitator. Analysis of the tapes indicated that this team did perform satisfactorily in terms of exploring and understanding issues. Part of the team's success, however, was attributed to Agnes' intervention, in particular her highlighting of issues that might otherwise have gone unexplored and her use of personal narratives to exemplify what she perceived to be good practice. The continual use of narrative discouraged other students.

It's so annoying. It doesn't matter how much effort we put in, she's still got to add something. People think that they've covered everything but she always has to cap it with some story or other.

Jack (Karen's team, Branch)

Jack's frustration was plain. What was the point of putting in a lot of effort if the work produced was never good enough and the answers were provided regardless of the material produced. Jack saw the final 'story' as an indication that his effort had been insufficient. What Jack interpreted as negative criticism was actually intended to be positive as Karen stated that she used the last narrative of the feedback session as a reward. Despite this, Karen was not comfortable with the concept of evaluation in PBL

I have this ambivalence with evaluation and quality. One area I need to find out about is the evaluation of PBL. I've never really managed to get into the formal evaluation we developed, what two years ago?. You don't want to be evaluating the students, well maybe you should, but my feeling was, you start to get the students to do a formal evaluation too soon and it almost puts them off. I do regularly try and say 'These are the outcomes

we thought we suitable and what we thought we should get' and say 'right, what have we got?'

This statement highlighted Karen's position on evaluation. Overall she did not appear to be convinced that evaluation was part of the PBL process. She had been involved in developing a tool to assist facilitators with evaluating student performance in PBL, but had never attempted to use it, yet she 'regularly' checked that the team had achieved the outcomes. Her use of 'we' and 'our' suggested that she was part of the team and thus she too was being evaluated. Although nurturing socialisers thought that they gave encouraging, positive feedback to students, their subsequent actions indicated to the students that, in fact, they had not performed well. Rather than being motivated to improve their presentations, students who felt either unchallenged or comfortable thought that there was little point in doing more work as the facilitator was going to tell them the answer regardless of how much they had done.

Conclusion

Like the other approaches, this approach could only be maintained when it matched the facilitator's espoused theories about PBL. The approach was supportive and nurturing, reflecting the espoused concepts about nurse education. PBL offered rewards to nurturing socialiser facilitators by creating opportunities to influence students' values and beliefs about nursing. It also provided a platform through narrative, to demonstrate expert standing. Other rewards were subtler. The facilitators who were consistent in the nurturing socialiser approach, indicated that for them, as for many nurses from a similar practice era, nursing was a vocation where the rewards came from assisting and supporting patients, rather than from financial remuneration. In education supporting and

nurturing students provided similar intrinsic rewards through the reinforcement of the facilitator's own personal agenda.

Most of the facilitators adopted more than one approach during the period of the study as they attempted to develop an effective way to facilitate PBL. The approach that most facilitators had adopted by the end of the study, that of pragmatic enabler, is presented in Chapter Ten.

Chapter Ten: Findings (4)

THE PRAGMATIC ENABLER APPROACH

Introduction

The pragmatic enabler approach evolved as facilitators gained experience in and reflected upon facilitation. This chapter describes the transitions required to adopt and sustain this approach, illustrated by the journeys of three facilitators who developed the approach through different routes.

Characteristics of the Approach

The pragmatic enabler approach was characterised by an emphasis on learning the processes to foster learning rather than on the remembering of content. Students were encouraged to acquire skills, such as issue identification, searching for evidence, critical thinking, and interpersonal skills (for example interviewing, challenging and team management) in addition to factual knowledge. This approach supported the concept that healthcare knowledge has a short life span and that possession of a bank of 'facts' would serve nurses (and hence patients) for only approximately five years. Students therefore, had to develop strategies that would keep them abreast of current evidence, its implications for and application to nursing care. The pre-registration programme was viewed as initial nurse education and no longer as the only requirement for a life-long career. The pragmatic enabler approach recognised that to enable students to achieve their maximum potential, facilitators required a flexible approach, which was time and context dependent and responsive to the needs of a diverse range of students. There was a sense of pragmatism related to the requirements of the Scottish Office Contract to produce qualified practitioners for the Scottish Health Service and the recognition that for many applicants, nursing was just another job rather than a chosen career. Learning and teaching strategies had to provide motivation, interest and relevance for the student to achieve the award,

therefore the onus was on teachers not only to develop such strategies but also to make the processes involved in the strategies explicit to the students.

The pragmatic enabler approach was not fully identifiable until the third cycle of the study when it had become the approach adopted by eleven of the eighteen teachers in the study. This approach developed over time with increased exposure of facilitators to PBL. No facilitators demonstrated the pragmatic enabler approach when they first began to implement PBL. Confidence in facilitative ability and deeper understanding of PBL as a learning strategy were linked to the emergence of pragmatic enabler as the favoured approach. The approach was first noted at the end of the second cycle when initial analysis suggested that this approach was a 'pick 'n' mix', where one or other of the previously identified approaches was selected according to the character of the student team and the content. Analysis of the data from the third cycle revealed that although this approach did possess some attributes that seemed to have been taken from the other approaches, it differed considerably in other respects. It had similarities with the concept of scaffolding student learning described by Hogan and Pressley (1997) and with modelling (Schön, 1987).

Scaffolding implied that students were supported by the facilitator as they learned for themselves. A building scaffold is a temporary structure; the analogy was developed by the gradual dismantling of the scaffold (facilitator support) as the students became more expert in their thinking. Although Hogan and Pressley (1997) indicated that one-to-one tutoring was the prototype for scaffolding, they recognised that in most educational environments this is not possible. They suggested that dialogue between students and teacher or between learners was central to the concept and therefore

teachers should seek strategies that permitted such dialogue. This latter premise reflects the discursive processes within PBL. While scaffolding of learning suggested a sustained incremental withdrawal of facilitator support, the type and amount of support in the pragmatic enabler approach was dependent on factors related to student team characteristics, the content, the timing of PBL sessions within the programme, frame factors and to a lesser extent, the facilitator's own clinical background and knowledge base. In the pragmatic enabler approach, although the scaffolding structure was progressively dismantled as the students became independent in their learning, there were points at which new scaffolding was added. The new scaffolding either replaced previously removed scaffolding or was added where scaffolding had not previously existed.

Modelling conveys to learners a way of being and doing. Schön (1987) maintained that modelling is significant when it produces effective imitation and thus it is part of the process that enables the learner to begin to understand what they are doing. The teachers in the study were familiar with the concept of modelling from clinical skills teaching where good practice is demonstrated with the intention that the students will imitate it. All the participants were aware that to some extent they acted as role models for students. Until the implementation of PBL most teachers had seen role modelling as being restricted to clinical skills and practice. The development of the pragmatic enabler approach brought a realisation of the potential for modelling of other attributes within the PBL seminars to promote the development of lifelong learning and critical thinking skills.

Developing the Approach

All of the facilitators who finally adopted a pragmatic enabler approach started out with the directive conventionalist approach. As discussed in Chapter Seven, the adoption of the directive conventionalist approach by new facilitators was associated with familiarity and comfort with an approach that resembled previous teaching styles.

Lorna typified the transition from the directive conventionalist to the pragmatic enabler approach. Lorna, who had a clinical background in adult nursing, had worked in the Dunagoil School of Nursing and Midwifery for approximately ten years before the integration into Kingarth University. She had studied for her first (non-nursing) degree as a full time student. This experience led her to believe that nursing students failed to perceive themselves as 'university students'. They did not think at the same level as university students and did not capitalise on the opportunities offered by student life. She had initially been employed by Kingarth Royal Infirmary as an in-service education officer before joining the School of Nursing's post-registration department, situated in a large Victorian house some 15 minutes walk from the main Dunagoil site. In the months following the merger Lorna began to feel isolated and excluded from much of the School activity. The ornate plasterwork and superb river views did not compensate for the lack of an e-mail link or the implication that the post-registration department was now a financial burden. The buzz and energy within the School was linked to pre-registration activity. Only two staff from the post-registration department had been given management posts in the new structure. Lorna was determined not to be sidelined and began to integrate herself into the main work

of the School. She volunteered to be a module leader for the new pre-registration programme, was a representative for several committees and became the only lecturer in the management cognitive group without a management role. Five years after the merger she had achieved her goal, a managerial position and her own office in the Dunagoil campus.

Following the creation of the new School, Lorna, in common with the other staff from the two post-registration departments, was required to undertake teaching of pre-registration students. She had been accustomed to working with small groups of qualified staff and as she felt that PBL offered an opportunity to encourage nurses to think, she became a PBL facilitator.

I think initially I tried to fall back on what I already did. I found that quite difficult. Most of my work has been in post-reg and that's with small groups anyway. So it's a case of prompting and doing a bit more and teasing them out and getting them to speak a bit more. Sometimes it works and sometimes it doesn't. The CFP, I've still got to tell them a lot and I've got to watch that I don't start saying, you know, well have you thought about, what about this, that and the next thing. So I try not to tell them too much but sometimes I tell them quite a bit.

There's a tremendous difference working with the adult branch, maybe I've just got a good group. As soon as you give them the trigger they're away, they're up and running. I enjoy it; it's my style of teaching. I'm a guide; I'm a resource person really.

In this second research cycle interview, Lorna stated that in the first stages of facilitating PBL she, like many other neophyte facilitators, had adopted an approach with which she was familiar and comfortable. She used a method that was tried and tested with small groups of post-qualified staff. The approach tended to be directive as it was designed to encourage staff to share their experiences. Data from Lorna's early branch sessions indicated that, as she had identified in the interview, she was directive with her team. In common with the other directive conventionalist facilitators Lorna,

at this stage, employed divergent questioning as her main method of eliciting content. The questions, however, were addressed to the whole team and were not always directed to the student who had been speaking. Students also were invited to ask questions. Unlike Andy who asked for questions but did not allow time for them, Lorna allowed ample time for students to formulate and ask questions. If there were no responses, specific students were targeted but in a non-threatening way that was more similar to the nurturing socialiser than the directive conventionalist approach

You looked puzzled, would you like to ask something? You haven't had a chance to say much so far . . .

Questions were organised in series to lead to a point that allowed Lorna to tell the team about a particular issue. In contrast to Ewan and Andy, who would often introduce their own agendas regardless of the topic under discussion, Lorna preferred to approach her personal issues by linking her topic to the students' topics. Although she originally believed that she had to give the foundation students a lot of information, she recognised that there was a limit to this and that students should be encouraged to tease things out. She stated that she told the students 'quite a bit', but conversely claimed that she had to stop herself from giving them prompts, although the supplying of prompts could be construed to be part of the teasing out process. This may be why she found that falling back on her previous experience of small group work was difficult. On the one hand she felt that students required to be given information; on the other that they should sort things out for themselves without any clues. She did indicate, however, that she felt that her approach had altered to match the more experienced branch team.

In the branch programme data from the first two modules revealed that Lorna continued to ask a considerable number of directive questions and to channel the

discussion towards specific topics, but that her use of questions began to decline as the students developed expertise in generating their own topics and discussion. Gradually the team began to discuss issues in more depth, which reduced the amount of time available for Lorna to ask questions and give information. In the remaining three modules of the programme Lorna altered the style of her interventions, asking fewer questions overall. The questions differed in structure. They were now geared to widening the students' perception of the issue, to appraising the quality of the material fed back or to exploring the application to clinical practice. Where questions were used they were more open and often sought students' feelings. Lorna's aim was to encourage the students to ask questions that challenged each other and the material rather than to test knowledge. Mainly divergent questions were used, in formats of

Can you explain that?, Tell us a wee bit more about . . . How does that link with . . . ?

In some sessions questions had disappeared and were replaced by comments.

This excerpt is taken from a PBL seminar relating to the use of cannabis as pain relief for people with multiple sclerosis. The discussion had moved to consider support for those who wanted give up smoking or make other lifestyle changes and the need for support to meet cultural needs.

Joan: In my last placement, there was a large number of Asians in the community and the GPs had decided that they would ask one of the community nurses who was from . . . Pakistan, I think, to run a drop-in clinic to give advice on health generally - heart disease, that sort of thing and she didn't get one single man.

Lorna: That's interesting, a clinic run by a female nurse and no men attending.

Joan: I never thought of it that way, only about the poor take up.

Gloria: I suppose, that group, it's really male dominated, isn't it ?
Like a lot of the older women don't go out

Sharon: The young yins dae [the younger ones do]

Gloria: Yeah, but the men's attitude hasn't changed - they still think women are inferior

Carin: is it no' mair thur religion? [isn't it their religion?] About men lookin' efter men? [men looking after men]. Ye'd need tae fin' a' that oot afore ye sterted yur clinic [you'd need to find out about that before you started the clinic]
(discussion continued)

Lorna had made a single comment that prompted the team to consider issues related to provision of health promotion specific to gender or ethnic group. She did not question the team about what should be done, but by highlighting the issue, prompted the team to discuss it further. The team apparently had some knowledge but identified that more was needed to ensure that success of the clinic. The team did not expect Lorna to provide the information for them but pooled what they already knew, recognising that their knowledge would need to be verified before they could put it into action. Lorna continued to use comment as a method of attracting attention to issues that she thought should be discussed in more depth. The comments were made in a conversational intonation rather than a questioning one. Students did not always pick up on the comments. If they did acknowledge them, they occasionally stated that the issue highlighted by the comment was not perceived as important to the team. Lorna recognised that this was happening.

To begin with I had the need to be right. I found that anxiety provoking, but then I thought 'why should I?' because they go and find out the right stuff anyway. Then they started to challenge and I found that really interesting because they'll say to you 'that's rubbish, it's not happening in practice' so I've developed the habit of saying 'OK you tell me what you think and we'll work out whether it's right or not, but most of the time it is'

Lorna's experience reflected that of many teachers in that initially she retained the teacher's role of being 'right' all the time and feeling that she should always have the answers. As she became more familiar with PBL she realised that she could not be an expert in all of the areas that could potentially be linked to the scenarios. Lorna

recognised that if the PBL process was operating successfully the students would find the 'right' material for themselves. As the students became more confident in themselves and in the material they began to question the concept that the teacher was always right. Lorna indicated that she became comfortable with this and began to enjoy acting as a resource or a guide rather than the controller of the material. Although Lorna stated that she acted as a resource, students with pragmatic enabler facilitators were less likely to use their facilitators as resources or reality checks than students with liberating supporter facilitators. Lorna's student teams rarely asked her how material applied in practice, they were more likely to try to envisage how the material could be applied or to think of instances from their own clinical experience that exemplified what they had discovered in the research literature.

In the third cycle Lorna recorded tapes from sessions with a new CFP team. Analysis of these data showed that Lorna's approach was less directive than she had been with her first CFP team. She asked more questions of the foundation students than she had done latterly with her branch student, but the questions remained focused on encouraging students to think more widely about the issues involved and their integration with the taught sessions. She continued to use build-on-build questions to encourage students to discuss topics that she felt were important in relation to the scenario (Respite Care, Appendix 9). The students had identified the need for the patient to be assessed.

Lorna: She needs to be assessed, OK

Roger: we could start with the daughter's letter

Sacha: there seems to be a lot of info in there

Lorna: could be a starting point, this is what you understand. What would that help you with ?

Sacha: mobility, diet

Arret: elimination, ALs

Roger: assessment

Lorna: assessment, what does that help you establish?
Sacha: routine
Arret: likes and dislikes
Lorna: you're absolutely right. In relation to what?
Siobhan: see if she can stand up, walk, needs aids
Mhairi: her bowel habit
Arret: dentures, ask for a referral
Roger: hygiene needs
Lorna: what are you going to do with this information ?
Roger: to promote comfort, give the best care
Lorna: how are you going to achieve that?
Arret: by us finding out
Lorna: What are you going to do then? With the information?
Siobhan: make a care plan

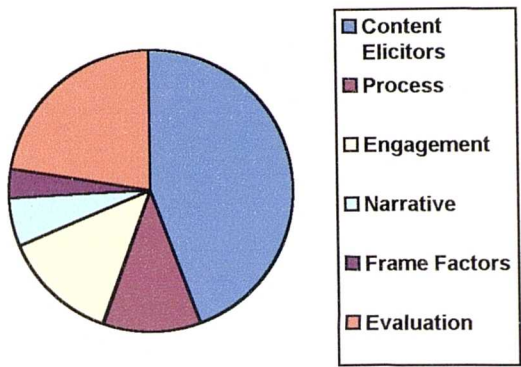
Lorna had recognised that the students knew about patient assessment. They had had lectures on nursing models and frameworks. From their discussion it was apparent that they were familiar with the most commonly used model for nursing (Roper, Logan and Tierney's Activities of Living (ALs), 1986). Lorna wanted to move the discussion towards the next stage in the nursing process, care planning. The pattern of facilitator / student dialogue was similar to the teacher-centred approach exhibited in the directive conventionalist approach but the focus of the questions was different. Rather than interrupting the discussion on assessment of the patient and asking questions directly related to how the information would be compiled into a care plan, Lorna began to ask questions that were related to why the assessment was needed, thus guiding students towards care planning. Her responses were positive, encouraging the students to keep contributing. From care planning she moved on to the nursing interventions related to care, prompting the students to look for research-based evidence to support their suggestions thus modelling the use of the nursing process and evidence-based practice. Lorna allowed time for several students to contribute. Again this differed from the directive conventionalist approach where the pattern was very much facilitator question, student answer, facilitator question and so

forth. In the pragmatic enabler approach any student who wanted to reply or comment could do so. When students became more familiar with the process, often only one or two questions were asked to maintain focus while the discussion remained mainly with the students. Comments continued to be used successfully. The students picked up on the prompt comment and began to consider the practicalities of providing a succinct discharge summary and the issues surrounding the 'need to know'.

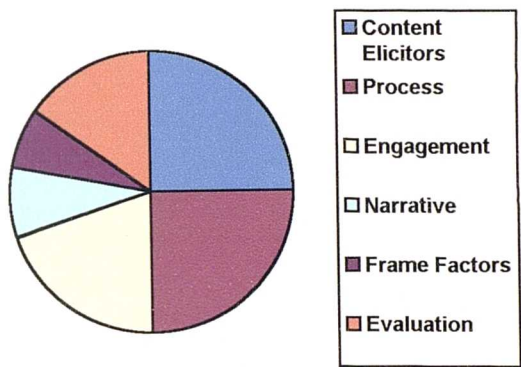
Lorna's approach at the beginning of the study centred on large numbers of directive, divergent content-driven questions coupled with information giving. At the end of three years she used fewer questions. Questions were open and focused on encouraging students to ask questions of themselves and the material. Comments were also used to direct the students' attention to areas raised that were worthy of further exploration. She had begun to engage more with the students. Having reduced the amount of evaluation undertaken at one point, she recognised that her third cycle team needed more formative evaluation to assist them in developing self-directed learning skills.

Figure 9.1 illustrates the transition in Lorna's approach over the three cycles.

Cycle Two



Cycle Three - Beginning



Cycle Three - End

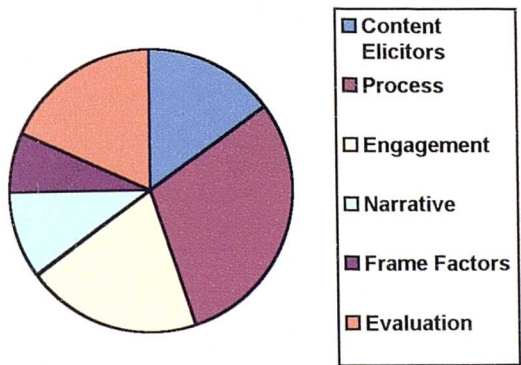


Figure 9.1

Lorna's Journey

Christine was another facilitator who also gradually moved towards a pragmatic enabler approach. Christine was one of the aged 40-something teachers who made up the majority of the staff at the time of the merger. Her clinical background was in elderly care. She was interested in second level (enrolled) nurses and methods of converting them to first level registration. This interest had caused her to explore the use of PBL as a learning strategy. She felt that the use of real life scenarios as a stimulus for learning had much to offer nurse education and went on to incorporate PBL into the Care of Elderly Specialist Practitioner Pathway. Like the majority of teachers her initial approach to PBL facilitation was that of directive conventionalist. Lorna had developed the pragmatic enabler approach in an attempt to tell students less and let them find out for themselves. Whilst Meg arrived at a pragmatic enabler approach through a process of trial and error, gradually piecing together the interventions that worked. Christine developed the approach after becoming aware of differences, firstly between students' responses to PBL triggers and, subsequently, differences between teams in general.

Generally I try to stay as hands off as possible, but I do a bit of dabbling. You know, a wee bit of prompting, a bit of a clue, asking a quiet one to speak. I dabble more when they're new, but they soon learn. Then for the first time the (branch) team were quite irritable and I've never known them like that. They felt lost because they had no past experience of head injury, they were still uncomfortable with pathways so they were downright irritable in that they were asking questions 'I can't do this'. That's the first time I've had to actively intervene with the actual PBL process in trying to link them back. Having said that the team really are excellent, work well, get on with it . . . not like the March 98. They're a real struggle. They haven't gelled and they don't even try to gel. They treat PBL as an optional session and they opt in and they opt out and their feedback is pretty dire. They look at the PBL trigger and that's it and, and I have to dabble and I don't like dabbling. I offered to help them lay down ground rules, but they would not have it. I've left them to do two triggers and both of which have been disasters and I'm ready for action when they come in again.

Christine had identified that new students required more help or 'dabbling' in the form of prompting, giving clues. Data from her third cycle CFP team showed that she encouraged the team to set ground rules. She also used directive questioning. Like Lorna the questions were used to prompt students to make links with other sessions or to the clinical area or to extend the topic under discussion. Questions were not used to test factual knowledge. Christine's CFP team had responded well to her approach, requiring less 'dabbling' by the end of the 18 months. Christine had expected her adult team to continue to require less intervention. This had happened with her first team until they encountered a scenario that they found difficult. Nothing in their previous clinical, or indeed personal experiences, provided insight into how this scenario should be tackled. The team felt that they could not manage this scenario and looked to Christine for assistance. Christine was surprised by this. The team had been increasingly independent and now, in the third year of the programme, they apparently had regressed and were seeking help. On reflection Christine realised that the disjunction had been created by the trigger material. Other branch triggers had linked to clinical situations in which some or all of the students had had experience whereas the head injury trigger did not. Although they were now in their third year, the unfamiliarity of this trigger made the team feel as they had done at the start of the programme. Their reaction was to return to the strategy that had worked in the early months of the programme: to seek guidance from the facilitator. Their facilitator, however, expected that the team would manage with only minimal support from her. With new teams Christine would have anticipated giving more support and probably would have intervened before the students started to think that they could not do the scenario. This experience made her realise that trigger content had an effect on the type of facilitation required by the team. Christine felt that she could not simply revert

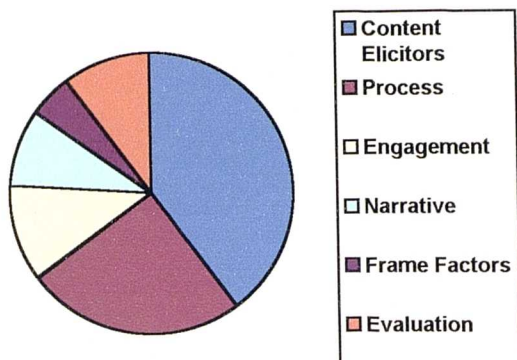
to directive conventionalist mode, given the seniority of the team and their proven ability to be self-directed. Like Lorna, she began to ask open questions, designed to stimulate the students to make links with existing knowledge and previous experiences. The students began to make links with patients recovering from anaesthetic and moved from there to brain function and the effects of head injury. This experience caused Christine to identify that she was no longer comfortable with asking direct questions and handing out information. A feeling that was reinforced by her next branch team.

Christine's next branch team reminded her of the diversity of nursing students. It appeared that her March 98 team consisted of one 'star' student and nine who were 'barely mediocre'. They were not interested in the work and produced only the bare minimum. Christine identified lack of facilitator consistency as a factor.

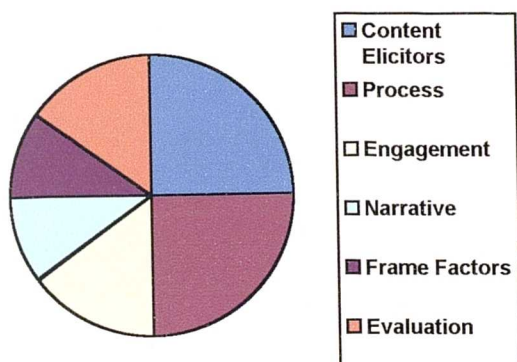
They seem to have been really unlucky in the CFP with facilitators. The September 97 class, we always were there. That didn't happen for the March 98, they seem to have been shifted from pillar to post and unfortunately I was on holiday for the first trigger so they seem to have decided it was more of the same with me. I didn't set ground rules because I've had no problems so far. I've learned. I can't make assumptions. I need to look at the team. I'd prefer to sit back and guide, that's my natural style, but this lot it's push, push push all the time and I'm miserable. I've gone back to [the PBL consultant]'s notes.

Christine realised that when the team sessions did not go as planned she did not enjoy them as much as she did with other teams. She could not continue to facilitate each team in the same way. She therefore revisited the information that had been discussed in the facilitator training days in her search for a solution to the team's problems. She also recognised the 'knock-on' effect of poor facilitation and lack of interest in the students. The stages in her transition are represented in diagram 9.2.

Cycle Two - Beginning



Cycle Two - End



Cycle Three

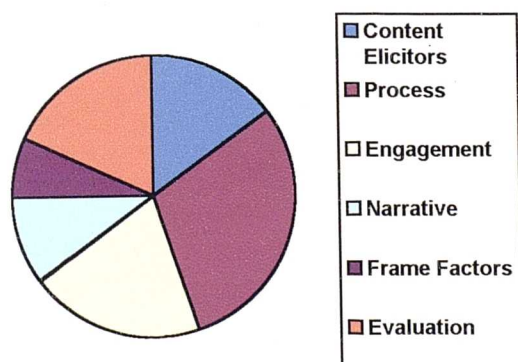


Figure 9.2

Christine's Journey

Although Christine was prepared to support the students and encourage them to take control of their own learning, lack of assistance and a feeling of not being valued earlier in the programme had caused the team to regard the PBL sessions as not very important. Christine's absence from the first branch trigger gave her team the impression that she was not interested in them either, a feeling that she unwittingly backed-up by trying to give them freedom to identify their own learning. The team interpreted this as lack of support and remained apathetic. Christine did not revert to her initial directive conventionalist approach but looked for new ways to encourage the team to take responsibility for their own learning.

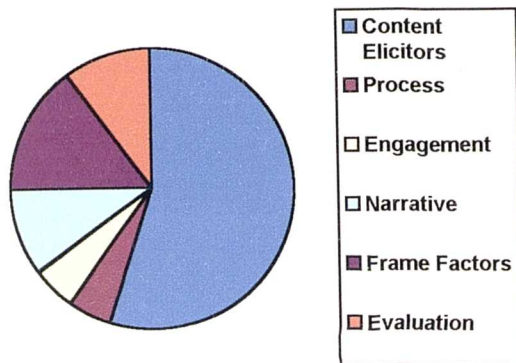
Like Lorna, Christine considerably reduced the degree of focus on content. She also increased the extent to which she engaged with the students. The need to model self-evaluation skills and to encourage students to develop these was apparent from the increased proportion of the evaluation element. Christine also became more willing to allow students to raise frame factors within the PBL sessions. At the end of the second cycle she engaged more with the students, but by the third cycle she had reduced slightly the degree to which she engaged with the students. Her use of narrative remained constant throughout her move from directive conventionalist to pragmatic enabler.

Meg has been cited in each of the approaches. With James, she was one of two facilitators who provided data in all three cycles. Unlike James, who adopted an approach which was maintained through the study, Meg's approach varied not only from cycle to cycle, but within cycles. Meg was aware of her vacillations.

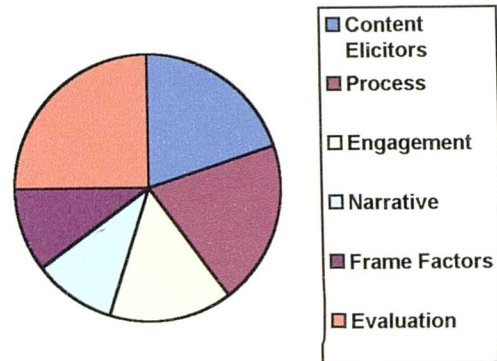
I seem to shift from pillar to post. Sometimes I think I've got it right and then I think that I should do something different. I listen to what the others say they do. Sometimes it rings bells, sometimes it doesn't. I think that ultimately, you've got to be flexible..... to go with the students. Let them go if they can, help them to get there if they can't. I don't think one size fits all.

Meg's initial switching of approaches stemmed from lack of confidence in herself as a facilitator. On her own admission she did not like working with students in small groups, preferring to keep them at a distance in lectures. Despite this she taught clinical skills groups and was one of the first to complete facilitator training. Like the students she was concerned about 'doing it right' and sought guidance from the other participants. She did not find all of their recommendations found useful and continued to try to work things through for herself. She expressed a strong belief that students should be able to learn for themselves and that lecturing to them was not the best way to help them to learn. As she gained in confidence she began to recognise that facilitation was not an application of a fixed set of techniques, but required flexibility in order to meet the needs of the students. Some teams could work with very little input from the facilitator whereas others needed more assistance. By the middle of the third cycle she was more comfortable working with students, admitting that she did not know everything, focusing less on content acquisition and more on helping students to enjoy the experience of learning. Figure 9.3 illustrates Meg's transition from directive conventionalist to pragmatic enabler.

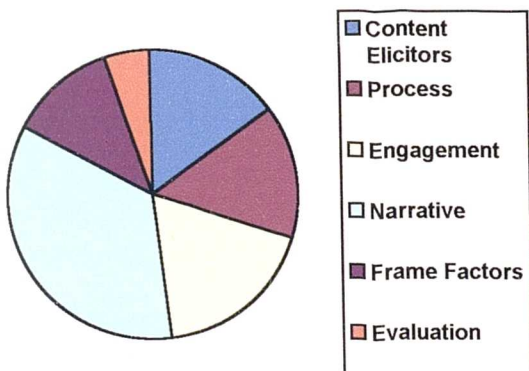
Cycle One - Directive Conventionalist



Cycle Two - Liberating Supporter



Cycle Three (Early) Nurturing Socialiser



Cycle Three (End) Pragmatic Enabler

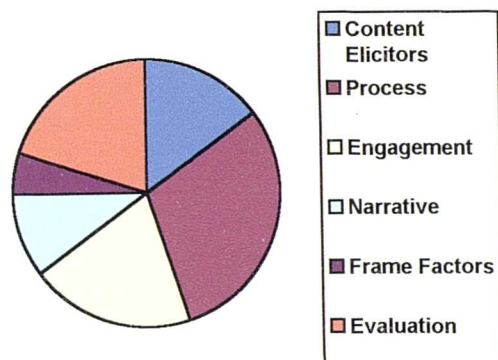


Figure 9.3 Meg's Journey

The Approach in Action

Facilitators who had developed a pragmatic enabler approach commented on the need to listen and try to follow the students' argument. Sometimes this was difficult, as described by Jean.

It was like wading through treacle, really heavy going. They seemed to be making really heavy weather of it and then - they're there. If you step in you throw them off. You've got to trust them.

Jean and many other facilitators had had experience of trying to follow a discussion that seemed to be making little progress. Jean had noted that if the facilitator intervened, the students were distracted and did not reach a conclusion. This was related to the position of the facilitator in the team. Pragmatic enabler facilitators were not perceived by the students as team members. They were still teachers, but their commitment to the team had earned them an 'honorary' status as team members. They were often asked to events that the team had organised, pub lunches, for example.

Although they had honorary member status, facilitators did not participate in the initial muttering in small groups that followed the handing out of trigger material. As facilitators had seen the material before the PBL session, they had formed their own perspectives. Those who were pragmatic enablers were aware of this and therefore deliberately did not contribute to the initial discussion unless the students were stuck. This was particularly true of facilitation in branch teams. The facilitators were not part of the development of the shared understanding of the trigger but despite this, had to be aware of what common understanding the team had reached. Jean's comment about trusting the students was typical of pragmatic enabler facilitators. As these facilitators became more comfortable with PBL, they started giving the students scope to identify and explore issues. The results were dramatic - 'PBL works!' was the

consensus. Teachers now had personal examples of what students could achieve through PBL. When facilitators realised that students could be trusted to explore the issues, they stopped intervening with directive, own agenda questions related to content. Instead, they used comment and linking questions to encourage students to challenge and justify their own and each other's learning.

In the feedback sessions, students gradually began to change from reading out their findings to developing discussion about ways in which the situation should be resolved. Pragmatic enabler approach facilitators encouraged students to think about the logic of the order for feeding back material. Julie, a learning disabilities branch student in Jean's branch team, described how the feedback process had altered as her team followed the facilitator's model

To start with, we all just read our own wee bit and it was well . . .
Thank God that's over. But now it's like it all fits together, so you need to pay attention to what other folk are saying because they'll want to know how what you've done matches with their bit. So now we all just chip in as it comes up.

Initially students tended to want either to speak first and get the presentation over with or to wait until last when there might be insufficient time for debate or questions. Jean began to interrupt the presentations with open questions such as 'What do the rest of think about that?', 'Do you agree with what's been said?'. Over time students began to follow her example and, as Julie pointed out, to 'chip in' with material that matched with the discussion. Pragmatic enablers encouraged students to identify timetabled sessions that linked with the PBL material. All students were expected to contribute learning from fixed resource sessions to the feedback session. Students were encouraged not to select topics covered in taught sessions as issues for exploration. Recapping was initially undertaken by the facilitators and then requested from the

team. Where the modelling aspects of pragmatic enabling were successful, students began to volunteer summaries of the discussion without being prompted to do so. Facilitator support decreased as the students gained confidence. Students elected as the chairperson and / or scribe were given guidance on their roles in the early sessions. This guidance often encouraged the chair / scribe to reflect on what was happening. The assistance was reduced as students became more confident in the role. Usually the prompts were successful. The first element to show improvement was the dividing up of the workload - 'the divvy'. In the early CFP sessions the 'divvy' took almost as long as the identification of learning needs. At this stage, pragmatic enabler facilitators were more likely than others to prompt students to give consideration to who selected which issue. Pragmatic enabler facilitators reminded students that they should attempt a range of issues and not stick to only sociology or life science topics, for example. Only partial success was achieved. Whereas students modelled questioning and challenging techniques, they tended to keep to favoured topics, only changing if strongly prompted to do so. Liberating supporter and nurturing socialiser approach facilitators tended to leave the choice and allocation of topic entirely to the students. Directive conventionalist approach facilitators would intervene if they thought that the process was taking too long. Engagement with the students and the PBL material varied as facilitators developed a pragmatic enabler approach. All pragmatic enabler facilitators stressed the importance of consistency of facilitator. Just teaching staff came to trust the students, students needed to know that the facilitator would trust them by giving them increasing freedom.

Sandra, an adult student in her third year, related how Ben, a novice facilitator had taken a session for Graham, their own facilitator.

He kept saying to us “do it this way” and we kept trying to tell him we didn’t want to do it that way. He kept on and on so finally we gave in. Then we met again and sorted it out our way. We knew Graham was back for the feedback and we knew it would OK with him.

This team’s experience with its own facilitator had allowed them to identify and explore their own issues. The students resented the amount of direction being given by another facilitator. Ben had been determined that the students would do things his way. The students finally had decided that they would appear to do as he wanted. As they knew that their own facilitator would be at the feedback sessions, they ignored the issues that Ben had identified and set up another meeting to explore their own agenda. Their relationship with Graham was such that they did not doubt that he would agree with their actions.

The pragmatic enabler approach used less non-verbal communication than the others. Non-verbal cues were restricted to nods and encouraging noises. Pragmatic enablers made explicit what was expected of the students. Most pragmatic enablers regularly told the team that the aim was to develop learning skills and gave feedback on how they were progressing in this development.

Frame factors were dealt with on an individual basis. Pragmatic enabler approach facilitators assessed each factor as it arose and responded to a greater or lesser degree. The assessment included asking how important the factor was to the whole team. If all or most students agreed that the frame factor applied to all or most of them, the facilitator would allow discussion. If the factor related to procedures or policies within the school, students were directed to the relevant person or department. If the factor was an issue for one or two students only, the facilitator often offered the chance to talk over the issue after the session. On one occasion where the frame factor

was a serious problem for one student, the rest of the team offered to take an early break while the issue was discussed with the facilitator. As an honorary team member pragmatic enablers were kept abreast of important events in the lives of the team. Reporting of these events, such as engagement, becoming a grandfather or the illness of a close relative, was undertaken at the end of the PBL seminar, unlike frame factors which were raised before the session began. With the exception of clinical experience, frame factors were raised less often as students progressed through the programme. This led some facilitators to set aside time from the first PBL in any module for reflection on practice. Facilitators stated that this was not PBL, but was akin to it, 'student-generated' PBL.

Narratives were an integral part of the pragmatic enabler approach. Facilitator narratives were more common in the early stages of the programme with student narratives developing in the later stages as students began to link theoretical material with practice experiences. Like liberating supporter and directive conventionalist approach facilitators, pragmatic enabler approach facilitators used experiences from practice to provide examples. Pragmatic enabler approach narratives tended to be fuller and more detailed than those in the directive conventionalist and liberating supporter approaches. Pragmatic enabler facilitators included narratives about incidents where they had made mistakes.

To complete the pragmatic enabler approach, evaluation was undertaken by encouraging students to reflect. Again this was a developmental process. Facilitators were clear in telling students that they were working towards becoming reflective, tying in with sessions on reflective practice and the use of reflective comments in the

students' Continuous Assessment of Practice (CAP) booklets. Pragmatic enabler facilitators began by giving their reflections on the students' performance in the PBL session and then asking the students to follow suit, using comments such as

I thought you explored the issues around brain death well. You had a wide range of material from a variety of perspectives. What did you feel you'd done well?

In the early modules, this process focused on the material produced by the students. As the programme continued, students were asked to think about their own performance and that of other team members, including the facilitator.

The Effect of Approach on Students

When the pragmatic enabler approach was successful, students began to question each other in both the introductory and feedback sessions and to discuss the material that they brought back to the team, rather than simply reading from a paper, then saying nothing for the rest of the session. Sharon, one of Lorna's third year adult branch student gave her view on this

We all know that we've got ask to questions. If we don't she will.
It's better if we get into an argument rather than just sitting wondering when it's going to be your turn.

Sharon felt that being actively involved in the learning was more enjoyable than being taught. It was better to discuss the material rather than waiting to be questioned. When students questioned each other, they did so because they wanted to find something out or to have an issue clarified. This was less threatening than being asked a testing question by the teacher. Asking questions also provided an opportunity to mesh individual students' material. Arguing with each other made the students attend to the issues, rather than speculating on how they had performed in the presentation. This attitude was reflected in the data, as the students became more experienced, they

talked more to each other, leaving less time for the facilitator to intervene. The involvement of all team members in discussion reduced anxieties associated with presenting and provided opportunities for students to argue their case. This experience appeared to be transferred to clinical practice. Naomi, one of Meg's third cycle adult teams gave an example

We had this man in my elderly placement and he [Naomi's preceptor] had put in a catheter. He'd [the patient] an enlarged prostate and retention, and yer man [the preceptor] says to me 'Go and clamp it [the catheter]' an' I says 'Sure an' why would I be doin' that now?'. So I gets this story about him [the patient] goin' into shock an' that. I jest said clamping did more harm than good and told him the research and says I'll bring him [the preceptor] in the stuff to prove it. An' he [the preceptor] says 'oh well, just leave it'.

The topic of catheter clamping had been covered in PBL. Naomi knew she was right and that there was evidence to support her. She had no hesitation in stating her point and refusing to participate in poor practice.

The length of time taken for students to attain this degree of independence varied considerably. Most teams did not achieve self-direction in the CFP, taking into the final year of the programme to take control. Rarely, teams became self directed by the second term of the programme. Both Lorna's and Meg's second cycle teams were completely independent by the end of the programme. In the final nursing module of the programme both teams challenged the content of one of the PBL scenarios. Meg's team stated that the major topic simulated by the trigger was repetitive (community services for elderly clients). They demonstrated this by presenting a solution to the problem, backed up with relevant research. They then identified two topics they wanted to learn about: travel health and cardiac pacemakers. Objectives were identified, work allocated, literature searched and material brought back to the team

for discussion. Lorna's team, on the Dunagoil campus, also challenged the focus of the same trigger. They too demonstrated existing knowledge of the problem, then went on to point out that elder abuse was a major issue that was not triggered and had not been covered in depth by fixed resource sessions. Again they set and met their own learning objectives. Meg, Lorna and I reported on the experience to the facilitators' group. As a result the PBL scenario was reviewed and the organisation of the module altered to allow students the opportunity to identify their own scenario.

Teams that became self directed early in the programme did not have any similarities in characteristics such as age, gender or social / educational / ethnic background. Consistency of facilitator was the only factor that was identified. Teams who had had a succession of different facilitators were less likely to become independent learners than teams whose facilitator had worked with them constantly. Consistency of facilitator was also linked to the length of the PBL seminars. Facilitators who frequently asked other teachers to cover PBL sessions spent less time with their teams even when they were present. Janette, a third year student in Meg's team highlighted this.

Our team, we always seem to be last out of PBL. The others are away and we're still talking. I like that, we get a lot out of it. My sister though, she's in Hilda's team, and she's always saying 'PBL's a waste of time'. Hilda's either not there or she dashes in late, tells them to do something and dashes off. If she is there, the PBL only lasts about half an hour. I said to Anna [her sister] that you only get out what you put in and that if she did more work it would last longer. But she just says no one else puts in any effort because they know it will be as quick as she [Hilda] can get it over with - they never discuss anything, not like we do.

Janette and Anna (Janette's sister, a student in the same cohort) pinpointed the influence of the facilitator on the team. Vernon (1995) found that not all teachers

liked PBL as a strategy and that this was reflected in their facilitation. Students in this study stated that teachers who enjoyed PBL valued them more. Janette's experience of PBL been positive as Meg, by cycle three, had shifted her approach from not giving eye contact and offering little support to students, to demonstrating her interest by active listening, giving positive non-verbal cues, such as nodding and smiling, and acting as a resource. She had encouraged Janette's team to formulate ground rules for the branch PBL and initially had supported the team members in identifying and meeting their individual learning needs. As the team became increasingly independent she decreased her practical support but continued to be present at each PBL seminar and to give constructive evaluation. Feedback sessions routinely took the full three-hour slot. Hilda, in contrast, felt threatened by her PBL team. Her main teaching interest was clinical skills and she preferred to work either in a one-to-one situation where she controlled what the student did or in lecturing to large groups of students where again she was the expert and there was little opportunity for challenge. Unlike Meg, who only visited her clinical areas when there was a problem, Hilda had a high profile with clinical staff who tended to contact her about all student problems. This led to her being frequently off campus, arriving late for teaching sessions or leaving them early. Her PBL team felt that she did not value them or PBL. They raised her non-attendance with her, pointing out that all the other branch facilitators managed to be with their teams at the right times. Hilda became defensive and even less willing to meet with the students. The students, who had started by producing material, began to imitate her behaviour, missing PBL and doing only the minimum of work, leading to Anna's comment that PBL was 'a waste of time'. In this situation, the time wasted was the students.

Influences on the Approach

Over the period of the study, facilitators became aware that facilitation was not simply adjusting the balance of the various elements until they found the 'right' mix which could then be practised and improved as lecturing skills could be improved through practice. Balances certainly had to be found, between being overly directive and leaving students confused, between allowing discussion on frame factors and dealing with all the problems the students might raise, between using narrative to link theory with practice and allowing the seminar to degenerate into gossip. The balance of the elements was influenced by factors other than facilitator preference. A major influence related to the congruence between the facilitators' espoused theories and their theories-in-use. Discomfort or dissonance between the facilitators' beliefs and their facilitative actions influenced their approach to facilitation. The opportunity provided in communicative spaces to share experiences and undertake shared reflection also contributed to shifts in approach. An additional factor that promoted transition was the growing awareness of the value of dialogue between students and teachers within the PBL seminars. Students' academic level and characteristics such as motivation, ability and previous experience and the content of the PBL scenario also had an impact on approach.

The manner in which these factors influenced the adopted approach was similar to that of a kaleidoscope. When the outer ring of a kaleidoscope is turned, the coloured pieces inside the inner ring are rearranged into a new pattern. Skill in turning the outer ring allows a desired pattern, rather than a random one, to be displayed. With the facilitator approaches, the influencing factors act as the outer ring. Changes or adjustments to these factors will alter the approach (the inner ring pattern) as the

balance of elements alters. In the early stages of the study the influence of these factors on the PBL process was unpredictable and facilitator response was in the nature of trial and error. In the pragmatic enabler approach, facilitators began to recognise factors that had the potential to influence the approach. With experience they had started to become pro-active and to decide which response was most appropriate.

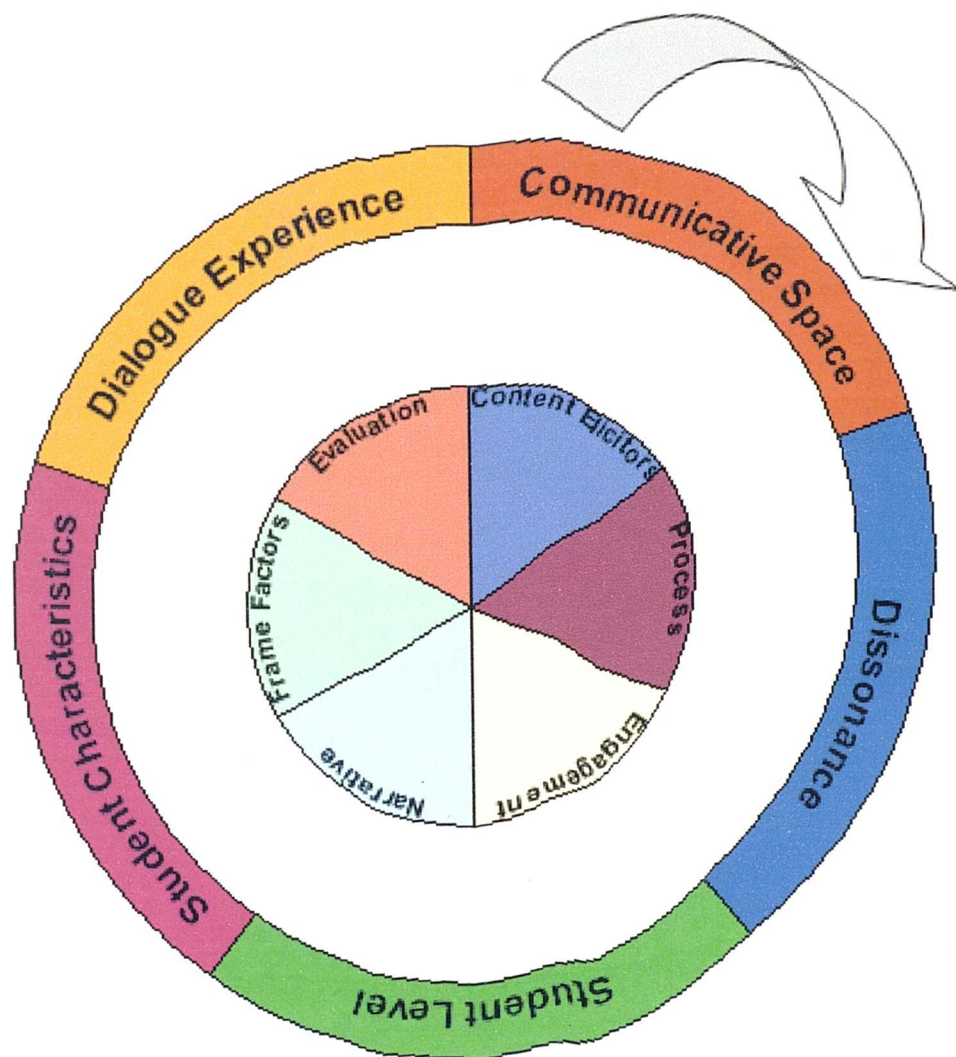


Figure 9.4 The Facilitation Kaleidoscope

Conclusion

The introduction of PBL as a major teaching strategy for the pre-registration programme had been a top down initiative. The teachers in this study had been the first members of teaching staff to participate in the facilitator training days. The reason for their interest in PBL was dissatisfaction with teaching large cohorts of students and recognition that giving a lecture did not necessarily mean that the students had learned anything. Their early experiences of facilitating PBL led to a realisation that existing techniques would not engender lifelong learning skills in students and that they would have to change their teaching style to match their changing beliefs. Further experience highlighted the need for an approach that accommodated diversity in students, a range of material and factors external to PBL.

From individual experiment and the sharing of experiences, the majority of individual facilitators developed an approach that shifted from reliance on directive, content-orientated questions to process-orientated comments; from information-giving by facilitators to increased student contribution; from static presentation of material to dynamic debate and from a position of teacher / expert to that of honorary team member. The next chapter discusses the experience of the facilitators and suggests reasons for the transitions made in the adopting of approaches.

Chapter Eleven: Discussion

FUNDAMENTAL AND TERRIBLY DIFFICULT

Malcolm Knowles 1975

Introduction

Knowles (1975) writing of his experience of moving from being a teacher to becoming a facilitator described the ‘fundamental and terribly difficult’ change required in self-concept. All of the nurse teachers in the study had a teaching qualification and a minimum of eight years experience as teachers. They received training before the implementation of PBL and support during the implementation. Yet each found that facilitation took practice, working through and adaptation to achieve the benefits. Even when the concept had been espoused, facilitation was not easy, despite the perceptions of non-facilitators. It was very hard to relinquish control even when you believed that you should.

My exploration of the lived experience of PBL facilitation highlighted the complex nature of teaching. This chapter discusses some of these complexities in relation to the findings. The tendency of researchers and educational theorists has been to simplify these complexities by creating models with categories within which teachers are invited to site themselves and their students. To some extent I have succumbed to this temptation by presenting four approaches to facilitation. The approaches are not static, however, but are kaleidoscopic in nature, changing pattern in response to the influencing factors. In this chapter I consider the influence of cognitive dissonance, the dialogic nature of PBL and the opportunities to develop communicative space on the facilitators as they developed their approaches to facilitating PBL. Student characteristics are also discussed in relation to their influence on PBL facilitation. The findings assist in understanding why the existing literature on PBL facilitation is conflicting, confusing and unhelpful.

Facilitation as technique or teaching?

Early analysis identified that the teaching techniques used to facilitate students in PBL are, in fact, those commonly used in other strategies. Questioning, recapping, echoing and summarising are all techniques frequently employed by teachers. Thus there is some support for those who claim that facilitation does not require the acquisition of new skills. However the techniques are applied in particular ways in PBL. There are similarities with the concept of scaffolding student learning (Hoggan and Pressley, 1997), encouraging the students through dialogue and example to ask *questions of themselves and their peers*, with teachers gradually refraining from using these interventions as the students develop increasing expertise in using them for themselves. Unlike scaffolding however, the support is provided to assist students in achieving outcomes that they have identified for themselves. Rather than disseminate knowledge from an expert standpoint, facilitators model the processes that assist in developing the expertise.

The counter claim to the ‘facilitation as simply good teaching’ argument, is that facilitators should develop ‘new’ skills. In practice this is more the need to use existing skills in new ways rather than to acquire a completely different set of skills. The nature of this application is complex. It is dependent on varied and often unpredictable factors such as the students’ level of understanding and their interpretation of the problem. Variations will occur from programme to programme and from institution to institution. The work of Savin-Baden (2000) identified that several models of PBL may be operated even within the same programme. In the face of such variations, concrete advice in the form of ‘if x then do y’ becomes impossible to formulate, a nebulousness that has contributed to the

expressions of confusion and dismay recorded by some novice facilitators (Haith-Cooper, 2000; Oliffe, 2001). The concept that PBL facilitators should not speak provides a recurring example of the confusion. Maudsley (1999) and Mifflin *et al* (2001) reported that tutors felt that student-centredness, particularly in PBL, equated with complete non-intervention from teachers. The same idea was held initially by some of the teachers in the study. If this belief is followed through to its logical conclusion, it can be seen why PBL is sometimes perceived by teachers as threatening. If, through PBL, students can learn without teachers, that leaves teachers with only the roles of curriculum development and assessment. The number of teachers needed therefore is considerably reduced.

The perception that the facilitators' role is totally non-interventionist also leads to challenges from those whose pedagogical stance tends towards the 'empty vessel' theory. Teaching equates with talking; learning equates with listening. Talk is always teacher talk. Students can only learn by being told by an expert. From this stance PBL appears as an easy option, a way of opting out of teaching. This perception obviously is flawed. If independent learning were so simple, teaching would not have developed to its current extent. PBL does require teacher input, but input that is specific to student need. Modalities that state 'if x do y ' are not in the students' best interests as critical thinking skills will not be developed. Transferred to practice, the lack of critical thought can lead to lack of professional judgement and hence provision of a less than high quality service.

My original motivation for undertaking the research, somewhat naïvely, was to seek out generally applicable principles for ‘good’ PBL facilitation. These would assist in facilitator training to provide standardisation of practice, possibly in line with the measures sought by the Quality Assurance Agency. However, for me, the study has brought an increased understanding and awareness that facilitation is not a simple process in which one single model or framework can be applied. It has also emphasised that a fixed model of facilitation is not in the best interests of the students, particularly in the current climate where the student group is drawn from a wider background than ever before. Nurse teachers have long been prepared for their role in a way that is only gaining momentum in higher education in the wake of the Dearing and Garrick reports (1997). Nurse education has been at the forefront of the wider access tide that is only beginning to lap the shores of other disciplines. Despite this we have been guilty of a lack of criticality in our teaching, continuing to adhere to our existing principles. Learning and teaching does not lend itself to clear conceptualisations (Martin *et al* 1999). The process of teaching is hidden and requires to be opened up and made explicit if we want to promote learning more effectively. Despite training, we all teach in different ways. As there is uniqueness in learning, there is also uniqueness in teaching based on individual experiences of both learning and teaching.

The research also points up that many of the models for teaching do contain relevant elements and do fit in several situations. The difficulty lies in the complexity of the teaching environment. Learning and teaching is a complex, multifactorial and situated activity. Research into how the factors interact and how teachers respond to and manage

this conglomeration has been minimal. PBL requires a different set of pedagogical beliefs from other teaching methods. The shift in belief lies less in acceptance of a new belief system and more in exploring how the espoused concepts apply in practice. Many teachers have long recognised the abilities of students in identifying their own learning needs and learning for themselves. More than recognition is needed if all students are to be motivated to learn for themselves. Finding ways to assist students requires that the recognition of student abilities becomes an integral part of the cognitive structures that enable effective teaching. The findings of this study indicate that for a specific approach to PBL facilitation to be maintained, teachers' behaviour must be congruent with their beliefs about the nature of learning and teaching. To achieve congruence an awareness of espoused beliefs is necessary. The chosen approach to facilitation could only be maintained if the theory-in-use matched with the espoused theory. For the majority, however, the effort of applying previous teacher-centred actions to a strategy that focused on the needs of the students brought about a lasting change in espoused concepts from the traditional reproductive pedagogies of nurse education to an approach that assisted students to develop skills for critical thinking. Several factors influenced this transition: the need to resolve the dissonance between the concepts espoused by teachers and their theory-in-use; an increased understanding of the highly dialogic nature of PBL; the use of communicative spaces which allow sharing of information and reflection on experience of PBL and an increased awareness of the diversity of students and their learning needs.

Espoused Theories and Theories-in-Use

Work originally undertaken by Argyris and Schön (1974) propounded the existence of espoused theories and theories-in-use. The original work and an abundance of further studies demonstrated that what people claim to believe and what they actually do often do not match. Several studies (for example Rando and Menges, 1991; McFalls and Cobbs-Roberts, 2001) into teachers' attitudes and beliefs indicated that for a curricular change to be successful there had to be a corresponding change in teachers' beliefs. Without this shift in pedagogical stance, attempted changes will not be completely successful. Implicit beliefs are individual and personal and often do not fully equate with formal educational theories. Egan (1994) identified that any change in curriculum will be affected by teachers' world view. Such beliefs are powerful and may bring subtle pressures to bring on any educational innovation. Individual teachers may assume that everyone working within the same department holds similar views, however this is seldom the reality. The 'real' source of teaching action is that of a complex mix of ideas, values and experience (Usher and Bryant, 1987; Eraut, 1994). According to these concepts, if PBL is to be effective, attention has to be given to teachers' existing beliefs. Teachers have to examine their existing implicit assumptions about learning and teaching in order to become effective PBL facilitators. If this does not happen, PBL seminars will continue in the same mould as previous small group work, with teachers continuing to direct what students should learn and how they ought to learn it. Brockbank and McGill (1998:145) explored facilitation for reflective learning and found that for many people facilitation is simply another variation on existing teaching style. The behaviour may differ slightly but ultimately teachers will still tell the class what to learn.

Most participants in the study stated that they perceived their role as facilitator to be one of guiding and assisting students towards independent learning. With only slight variations, this perception was common to all the participants in the study. The perception arose from several factors. The participants were the 'first wave' of facilitators, the enthusiasts. People who felt that PBL fitted with their existing concepts about students and their ability to learn, whose expressed espoused concepts were likely to match their actual concepts. The interviews in which colleagues were asked for their concept of the facilitator's role were undertaken within six to nine months of facilitator training during which time further development work was being undertaken with the external consultant. Additionally most participants had undertaken some further reading around PBL. Thus, the School's accepted definition of facilitator role was the one that came readily to mind. The expressed concept of the facilitator's role at this point was similar to that of a mission statement: PBL facilitators will act as guides to assist students in developing their own learning needs and becoming independent, lifelong learners. Teachers could repeat it parrot-fashion, therefore it is hardly surprising that there was a large degree of similarity in the definitions. The extent to which the accepted definition reflected the initial implicit beliefs about the role was difficult to assess. This group was generally pro-PBL but had had only a short time to integrate definitions of PBL with their own limited experience of it. It is likely that the espoused concepts were not firmly fixed at this point and therefore subject to alteration before becoming embedded. Facilitation in PBL was intended to support students, not to tell them or to provide answers but to

encourage students to find out for themselves. However facilitators continued to tell students what to learn and how to learn it.

In their original work, Argyris and Schön (1974) pointed out that while espoused theories could be elicited readily, people found it difficult to define their theories in action. This difficulty was apparent during the interviews. Participants were willing to try to state what they thought the role of the facilitator encompassed. When asked about how they actually carried out the role, most began to talk about incidents concerning the students and did not comment on their actions. In keeping with the work on espoused theories and theories-in-use, many of the actions undertaken by this first wave group of facilitators were not congruent with their concept of facilitation. If the study had ended at this stage, the findings would have suggested that although teachers who have undertaken facilitator training perceived their role to be supportive and encouraging, in practice they continued to act as they had previously, providing direction and instructing students on what they ought to learn.

As the study progressed, a shift in pedagogical belief was noticed in several facilitators. The change was not an immediate espousal of the new belief, but rather that of a betrothal, a period of increasing awareness of exactly what they had committed themselves to. As nursing had changed from a task-orientated philosophy to a holistic, patient-centred one, so the nurse educators in this study were ready to embrace a learning and teaching philosophy that gave the students responsibility and fostered the skills required for independent learning. The participants in the study were teachers who saw

merits and potential in PBL. The concepts of student-identified learning needs, learning in a practice context and the development of critical thinking abilities were appealing. They welcomed the opportunity to develop and implement a programme-wide strategy that reflected attributes that they had tried to introduce to their teaching at an individual level. For these teachers, the difficulty arose in trying to select from existing skills, those that fitted comfortably with the newly formed concepts. Instead of matching beliefs with actions, most nurse teachers in the study were trying make actions fit with beliefs. An exercise made all the more difficult as part of the existing belief system within the School held that, as experienced teachers and clinicians, they already possessed the necessary skills and ought to be able to facilitate. Having committed themselves to PBL , they then had to find ways of turning the concepts of student-centredness and self-directed learning into reality; to support students without controlling them. It took approximately two years for the majority of facilitators to develop fully the craft of the new pedagogy.

The new pedagogy included the craft aspects of teaching in addition to the theoretical belief system; the extensions of teacher thought and the verbal skills used to convey meaning and elicit learning. PBL may not offer the same opportunities for performance art as a lecture, however, facilitators quickly became aware that not only was PBL an active learning strategy for students, it was active and required learning by teachers, particularly in the early stages when students were unfamiliar with the process. Being facilitative was not simply being in the same room as the students, to make sure that they did the work. It required effort, a degree of thinking on one's feet and a willingness to engage with the students in a dialogue that was to a large extent of the students'

choosing. The provision of facilitators' guides did not make PBL an easy option, but on the contrary required facilitators to learn about a wider range of issues than ever before.

Much of the literature on PBL addresses the desirability of subject expertise in facilitation. This debate was also raised by the participants in this study. Teachers certainly felt uncomfortable when dealing with subjects with which they had only a superficial knowledge. There was a recognition that different types of questions were asked when the subject was one about which facilitators had a in-depth knowledge, a shifting of the agenda to elicit or create the same level of knowledge in the students. In the feedback sessions when the students had acquired material to support an argument, the facilitator required sufficient knowledge to know whether the material was on-target or not. Again this view prompted argument among the facilitators as they developed. If the students were bringing back up-to-date researched based materials, their knowledge might be more pertinent than the facilitator's.

With time and experience facilitators came to recognise that their own knowledge bases had taken many years of study, often at higher degree level linked to practice and an underlying interest, therefore it was unreasonable to expect pre-registration students to acquire this level of understanding. The development of enquiry skills was a more valuable aim, given the breadth of the pre-registration curriculum. Students should be encouraged to criticise the value of the research and to appraise its application for clinical practice. Moving to this position took time. Even although participants stated that their

belief about student learning was such that students could be trusted to learn on their own, demonstrating the belief was difficult.

Techniques that demonstrated interest in and engagement with students were also valuable. Facilitation skills were time and context dependent. Facilitators needed to be alert to the factors that would have an influence on the PBL process. What was helpful with one team would not necessarily be helpful with the next. A scenario which interested one team, producing in-depth learning, could prove to be boring to another. Dialogue with the students was essential, not only in relation to the contribution of discussion to learning, but in teasing out the nature of the learning situation, for example what students perceive as 'the problem' or identifying factors that interfere with learning.

Benner (1984), building on the work of Dreyfus and Dreyfus (1979) on skills acquisition, asserted that the 'expert' practitioner is one who has an internalised, almost intuitive ability, to recognise and act on patterns from previous experience. The background of experience possessed by the expert allows homing in on the essential areas of the problem, without wasteful consideration of unfruitful alternative solutions. 'Experience' as defined by Benner (1984:36) does not refer to the mere passage of time or length served in a job but to the refinement of preconceived notions and theory through encounters with many actual practical situations. Reflection on practical encounters is necessary for teacher learning and the development of expertise (Elton, 1994). It is not sufficient to feel that a particular session 'went well'. Reflection allows examination of why the session went well (or otherwise) and what further learning is required for future

sessions to be improved. Development of expertise in PBL facilitation followed a similar pattern to clinical expertise. Although the facilitators possessed considerable experience as teachers, the newly espoused concepts of PBL had to be refined through application in the PBL seminar. The nature of the contact with students in PBL seminars led several teachers to compare facilitation with clinical teaching or personal tutor roles rather than with previous teaching roles such as lecturing. Both clinical teaching and personal tutoring centre on supporting individual students. It is therefore likely that with increasing expertise facilitators recognised patterns from their experience in these roles as being more useful than knowledge-led teaching roles.

Dissonance

In the early cycles of the study discrepancies were noted between espoused theories and theories-in-use. Over time a different pattern began to emerge. Although the behaviour of a small number of facilitators remained unchanged, the majority of participants began to change their teaching techniques to fit with their beliefs. One potential cause of this shift was cognitive dissonance as identified by Festinger (1957). According to Festinger's theory, cognitive dissonance is a feeling of psychological discomfort experienced when an individual encounters new knowledge that does not fit with previously acquired understanding of the topic. The discomfort will motivate the individual to seek ways of eliminating or reducing the feeling. If pedagogical beliefs include implementation as well as conceptual beliefs then the incongruence between what is held to be true and how this belief is demonstrated will create cognitive dissonance.

Linek *et al* (1999) and McFalls and Cobb-Roberts (2001) found that dissonance was a powerful factor in changing teachers' beliefs and practice. Linek *et al*, in a study of pre-service teachers, identified that dissonance arose between expectations from theory and experience in teaching practice. The resulting dissonance caused examination of the teachers' own existing beliefs, promoting acquisition of further knowledge and personal growth. One of the main causes of dissonance was the complexity of teaching practice in contrast to the theoretical frameworks. My personal experience in providing facilitator training for new staff members suggests that staff who are new to teaching adopt the philosophy and skills associated with PBL more readily than those who have been teaching for several years, yet are just as likely to experience dissonance. Linek and his colleagues additionally suggested that the dissonance was not only cognitive, but that the context in which teaching takes place can give rise to other types of dissonance such as cultural or political dissonance. With the new teaching staff the dissonance was more likely to have been of this nature. One group of educational theorists (for example, Freire, 1974) argued that an individual's experiences in life will influence the ways in which they learn. Such experiences are not forgotten or ignored because the student is on a prescribed course of learning; their influence will remain. Attempts by teachers to apply a single cognitively-based educational theory are likely to cause dissonance not only for teachers, but also for the students.

Participants frequently stated that their interaction with the team did not 'feel right' or that they were 'not comfortable' with facilitation, particularly in the early part of the study; indicating that they had feelings similar to those labelled cognitive dissonance by

Festinger. Wenzlaff and LePage (2000) proposed that even if the motivational drive towards consistency assumed by the cognitive dissonance theory was lacking, perception of self arising from self-focused reflection would lead to the adoption of behaviour-consistent attitudes. Argyris and Schön (1974:23) make reference to a similar mechanism, alleging that where an adequate espoused theory is matched with an inadequate theory-in-use, the incongruence will stimulate a change in the theory-in-use.

Cognitive dissonance is dealt with in one of three ways: by changing the new concept to make it consistent with *pre-existing concepts*, by *adding additional concepts to bridge the gap* or by altering behaviour to match with the new concept (Festinger, 1957). All three methods were evident within the School. Those members of staff who refused to become PBL facilitators denied that there was sufficient evidence to support PBL as a useful learning and teaching strategy. Thus the new concept about PBL was altered and devalued to allow continuing belief in existing concepts about learning and teaching. Those facilitators who remained directive changed the concept of PBL to match with their existing beliefs about the management of small group work. The nurturing socialisers added additional concepts about the PBL philosophy to their existing cognitive schema bridging the gap and permitting them to employ existing actions. The liberating supporters already possessed concepts that matched the PBL philosophy so were less likely to experience dissonance, while the remaining group who became pragmatic enablers adjusted their actions over time to fit with their concepts about PBL.

Dialogue

The study highlighted the dialogic nature of PBL as a learning strategy. The concept of dialogue in teaching is not new (see, for example Mezirow, 1981). It could be argued that discussion and debate are the original teaching strategies of higher education with their roots in the medieval *studia* such as Bologna. The theoretical underpinnings of PBL have been criticised as being weak (Colliver 2000). They fail to explain why students should learn from exploration of contextualised problems. Studies set up to test the individual theories separately from PBL tended not to be supported, although this did not prevent supporters of PBL continuing to promote them (see Norman and Schmidt 1992). Many of the theories claimed to support PBL tend to be based on cognitive functioning and ignore social, historical and cultural influences on learning. The findings of this study suggest that PBL has a degree of congruence with the theories put forward by Vygotsky (1962, 1978) and, more recently, Habermas (1987, 1996) and Shotter (1993), which reflect the importance of dialogue and communication in internalising knowledge and developing understanding. The connection of reason with communication is central to PBL. Through discussion of material and application of previous knowledge, students identify what they need to learn. The ‘previous knowledge’ that students brought to PBL seminars was not exclusively textbook knowledge. In the casualty trigger (Appendix 10), for example, students provided invaluable insights on professional-to-public communication and the emotions experienced by parents taking a child to a casualty department. Work by Bruner (1961, 1984) focused on the social context of learning, illustrating that the social interaction preceding the internalisation of knowledge and skills reduces ambiguities for students and increases the opportunities to develop

increased understanding and growth. The social context of learning influences the development of constructive meanings and the self-regulation of learning. Dialogue is therefore crucial in learning through social interaction; a concept that is applied in PBL.

One of the essential roles of the facilitator is to promote dialogue, not only between students, but between students and facilitator. Shotter (1993) commented on the difficulty of expressing thoughts in spoken words. Words have a contextual meaning that requires negotiation with the listener. The written word creates a given situation and lacks the musical expressiveness and intonational qualities of speech. Teaching is often the translation of the written word into speech, without the negotiated qualities of conversation. In the PBL seminars it was possible for students to discuss meanings in the context of nursing in the east of Scotland and to develop shared understandings, thus enhancing the internalisation of material. Vygotsky (1962) viewed internalisation, not as transferral of factual knowledge into memory, but as the construction of planes of understanding by the individual. Part of the facilitator's role was to assist students to construct these internal planes of understanding.

Vygotsky (1962, 1978) recommended that teachers should recognise the responsiveness of the student for learning and should offer assistance at the point at which the student required it. In PBL recognising when the students needed assistance and not intervening when they did not, was an essential skill. Poorly timed interventions had a considerable impact on the progress of the team. Intervening too early meant that there was a risk that students would stop thinking for themselves. Intervening too late meant that the team

might become demotivated. Timing and quantity of intervention were crucial to the success of PBL but there is no convenient rule to guide the developing facilitator. The skill has to be developed through experience and reflection. Each of the approaches had different perspectives on what constituted assistance. In the directive conventionalist mode assistance was linked to directive questions designed to test knowledge, indicating to students that they knew (or ought to know) the answer. Gaps in knowledge revealed by this method were filled by the facilitator. Assistance from the liberating supporters consisted of encouraging students to identify what they need to learn and acting as validators of the knowledge as it applied to practice. Nurturing socialisers assisted students through the provision of narratives. Glen (1999:7) suggested that the emergence of adult learning theories, increased acceptance of qualitative research and the maturation of nursing's epistemological foundations has engendered the growth of nursing narrative. She highlighted the increased popularity of stories among nurse educators and clinical practitioners, pointing out that the narratives were closely associated with perception, thinking, memory and reflection and could thus be of assistance in establishing professional identity and organisational culture. Pragmatic enablers assisted students in response to the content of the PBL material and the level of the student. New students or students who found the material difficult were given prompts or factual cues to assist in learning. More experienced students were encouraged to think about rationales and implications of suggested actions.

Recent literature on PBL is beginning to report on the influence of group dynamics. Interaction within groups was recognised as a contributory factor to the success of the

seminar early in the study. Facilitators in the School recognised and dealt with dysfunction. Unlike Tipping *et al*'s (1995) study, no student was likely to sleep unchallenged during seminars in the School. Directive conventionalist facilitators dealt with the dysfunction personally, indicating what was happening and telling the students what actions they were expected to take to resolve it. Facilitators with the other three approaches were more likely to ask the students what was happening and how the team members thought they should deal with the dysfunction. Thomas *et al* (1998) pointed out that a new learning strategy will alter the ways in which learners and teachers talk together. They contended that the key to success in influencing the nature of the transition is to understand the interactions that take place between the learner and the teacher. Understanding of the nature of the interactions has to be examined *in situ*. It cannot be assumed from the teacher's espoused theory. In the study, teachers began to alter their actions as they became more aware of the importance of dialogue, not only between facilitators and individual students but also among the students themselves. Facilitators intervened less, asked fewer directive questions and became more willing to let students develop their ideas.

Recognition of the need for students to talk through material in order create understandings led pragmatic enablers to develop techniques that encouraged reticent teams to talk. These techniques included spending longer on any frame factors that arose and promoting discussion by beginning the session by referring to a health issue currently in the news. When students had started to talk, they were more likely to continue talking when the PBL material had been issued.

Communicative Space

The importance of dialogue in the creation of shared understanding and in internalisation of new concepts did not apply only to students. Teachers quickly recognised that not only the students were learning through PBL. The initial three day facilitator training was only the beginning for teaching staff. Unlike organised on-going teacher-training programmes where teaching practice, teaching materials or reflective accounts may be assessed and where student teachers often work with an experienced teacher who acts a mentor, the staff in this study had to work through the process of becoming facilitators on their own. One of the major influences in creating the convergence in approaches and assisting teachers to reflect on and share their experiences was the facilitators' support group. The group provided a communicative space. Niemi and Kemmis (1999:55) defined communicative space as an opportunity to 'create and sustain communicative action orientated towards mutual understanding and consensus'. It aims to open up communication as a basis for mutual consensus about what to do next. There is no onus to produce 'an answer'. Niemi and Kemmis (1999) asserted that as more knowledge about teaching and learning emerges, as it has over the past decade, there is a need for teachers to learn how to become learners in their profession and for this learning to be supported. They expounded a system of communicative evaluation based on Habermas' (1987) work on communicative action. They argued that the effectiveness of educational programmes can be evaluated by communication between the stakeholders in the programme. This form of evaluation creates and sustains mutual understanding and unforced consensus around a programme.

McCillock (2001) indicated that working with an experienced teacher as a mentor enhances teaching practice. Apart from the external consultant who was based off campus, there was no-one with experience in PBL with whom to work. The support group helped to fulfil this function by providing a forum for sharing doubts, anxieties and successes. It provided a means of evaluating both facilitators' practice and the materials used in the scenarios. With the recognition of the need to allow students time to develop mutual understanding of the trigger material, teachers too recognised the value of sharing experiences and working together to create mutual understanding of what was being attempted. The exchange of experiences was frank. Teachers reflected on situations that they felt had gone well and on seminars that they thought could be improved. Implicit beliefs were made explicit allowing sharing and shaping of individual ideals. This openness helped facilitators to consider and make changes to their own practice and assisted in the evaluation of the trigger materials.

The staff in this study did not employ communicative evaluation to meet the needs of programme stakeholders such as the NHS Trusts. However they did use a similar process to support their learning about facilitation at a practical and developmental level. The emphasis was on examination and exploration rather than an imposed need to reach a single agreed way of working. In addition to the formal facilitators' support group, communicative spaces also arose in chance meetings of facilitators, in staff rooms and over lunch for example. The informal discussions had an unexpected effect. Staff who were not involved in PBL became interested in the discussions and began to elect to become PBL facilitators. Opening up space for discussion allows groups from different

cultures to agree common ground. Rando and Mengis (1991) contended that teachers hold implicit beliefs about learning that have often been shaped by experience and have been reinforced by cultural and institutional norms and practices. Teachers may not be fully aware that they hold such beliefs. Rando and Mengis (1991) claimed that expressing espoused beliefs caused them to be made explicit and thus more likely to be reflected on and more liable to change. Professional development such as this requires courage and self-criticism. Beaty (1998) suggested that peer support provides an opportunity for learning beyond that of private reflection. Through this, over time, the sharing of beliefs and experiences and the creation of mutual understandings fostered converging of approaches.

Student - Facilitator Interaction

Students appeared to be the greatest influence on the facilitators' approach. Although cognitive dissonance and communicative space provided vehicles for change, the motivation behind the change was the needs of the students. All the participants spoke of the differences between teams and within teams. Facilitators who were in transition towards or had adopted the pragmatic enabler approach spoke of the need to adjust facilitation, not just to suit the team but to assist individual members of the team. There was a realisation that not all students would achieve at the same level, but that each student could be encouraged to reach and even extend their own targets, in way that was not possible with other teaching strategies. The amount and type of support had to be varied to suit each team and its members.

Pragmatism has been criticised as an educational approach, as its emphasis on functional roles, skills and competencies may alienate students (Mann, 2001). Barnett (1994:178) stated that to reduce human action to a 'constellation of terms such as . . . competence . . . and skill' is to 'obliterate the humanness in human being'. In the programme which was studied, nursing students were required to achieve the competencies set by the professional regulating body (UKCC) in order to be registered, there was little choice. Failure to achieve the competencies meant being unable to register with the UKCC and hence to be employed as a nurse. Betchel *et al* (1999) highlighted the tensions between the critical thinking / clinical judgement focus of PBL and the competency-based education required by the transition of knowledge from the classroom to the clinical area. They indicated that the two philosophies are not incompatible and can be integrated to promote competency and critical thinking in students. Showing an awareness of the constraints imposed by the competencies and demonstrating action on the constraints, the pragmatic enabler approach assisted students to achieve the competencies while being encouraged to develop their own learning creatively and criticality. In addition to showing awareness of constraints and responding to them, Mann (2001) recommended four actions that could engage rather than alienate students; solidarity with students, hospitality, safety and redistribution of power. Mann does not specifically associate these actions with PBL, however, all were apparent to some degree in the PBL seminars, particularly when an approach other than that of directive conventionalist had been adopted.

Students and Redistribution of Power

Students in education frequently feel that the power in the system lies entirely with the teaching staff. Teachers are familiar with the environment. They know the rules regulations and how the organisation functions. Problem-based learning shifts some of this power by encouraging students to identify their own learning needs and taking responsibility and control of their own learning. In programmes like nursing, however, where there are statutory requirements to be met, there are still assignments to be passed and the environment is a temporary one from the students' perspective. Problem-based learning potentially can redistribute more of the organisation's power through the low student-to-teacher ratios.

Hospitality is one way of making students feel welcome. It was part of the ethos of the School, not just for PBL. Students were given tours of the various campuses and introduced to staff at the start of their course. Written and on-line information was supplied about all aspects of the programme. The PBL teams provided an easy way of meeting other students.

Solidarity with students, suggested Mann (2001), can be demonstrated by empathy and opening up conversations with them about the situations we find ourselves in. This matches with the students' observations that teachers who showed interest in them would comment about the weather, traffic or clinical experience. Jacobsen's (1997) work on frame factors dealt only with factors that related to the students. No mention is made of frame factors for facilitators. While some facilitators did have their own agendas, these

were related to what facilitators thought students should learn, rather than to what was happening to the facilitator. There is an assumption that teachers will adopt a professional *persona* and prevent personal life from impinging on work. However, there were situations where it was obvious to students that the facilitator's behaviour was in some way unusual or out of character. If teachers know students better through PBL, students are also more familiar with their facilitator than with other teachers. Not to acknowledge to students that there are issues for the facilitator which may affect performance could lead to students feeling alienated, that they are the cause of the altered behaviour or that they are not valued by the facilitator. Acknowledgement that there are frame factors for the facilitators does not imply that students are expected to deal with them. I did not explore this issue with facilitators. However, several comments from the data showed that nurturing socialiser and pragmatic enabler facilitators, in particular, did share some experiences, such as jet lag and minor ailments, with students. Such sharing redistributes power by acknowledging that teachers are not invincible.

Safety was a major concern in PBL seminars. Mann (2001:17) defined safety as 'spaces where students are accepted and expected' and where informal, non-rational or illogical ideas were listened to and nurtured. This acceptance was recognisable in seminars where a non-directive approach had been adopted. The actions outlined by Mann to prevent alienation of students had benefits for teachers. Where there is genuine personal interaction between learners and teachers, where students learn from teachers as well as themselves, then even teachers learn (Elton, 1999). The power inherent in the transmission of knowledge model is distributed as learning becomes a two-way process.

Several writers (Heron, 1989, 1999; Schmidt, 1994; Dahlgren, 1998) have identified two distinct components within facilitation: a component related to learning of content and a component that related to the teacher-student relationship. The content learning component was more prominent in the early stages of the study and remained of more importance to directive conventionalist facilitators. Early in the study, teachers had yet to experience personally the effectiveness of PBL and still had concerns that students would miss some potentially vital piece of information. As the facilitators became more confident with the PBL strategy, the student-teacher relationship component began to increase in importance for liberating supporter, nurturing socialist and pragmatic enabler facilitators. For the pragmatic enabler approach, relationships became of more importance than content acquisition. Tiberious and Bethson (1991) defined a 'good' teacher-student relationship as one in which there is explicit concern for the students' development and learning. They summarised the benefits to student learning that result from such a relationship as a positive effect on student development; students feeling more valued, committed, achieving passing grades and being more likely to remain in programme. As their experience increased, most facilitators became aware of the importance of engaging with the students. Students began to identify with 'their' facilitator. Faced with students who were no longer anonymous but individuals, teachers had to respond by experimenting with ways of facilitation to find which were most effective. Professionals, stated Beaty (1998), are required to experiment with new approaches and to assess the effectiveness of learning. Interest in students demonstrated by consistency and reliability of the facilitator, was highly valued by students. Problem-

based sessions were not optional for students. Teachers could negotiate changes of time for the sessions with the team. However, the team had an equal right to negotiate time changes. Some of the power had been redistributed.

Students were perceptive. Any discrepancy between word and deed was noted by them. The students' initial concern about 'getting it right' was reflected in the facilitator group discussion. Students were aware that PBL was new to the staff as well as to them and that to some extent they were participating in an experiment. No attempt was made to pretend otherwise. Student characteristics that were perceived to have most influence on the PBL process were personality and motivation to learn. Gender, age, educational background or race were rarely mentioned as having an influence on the team. This matched with the lack of literature on these attributes. In the context of this study, the lack of comment appeared to reflect clinical values of non-judgement and regarding individuals according to their own merits. Cohorts were perceived as being either good or bad, always had been and, given human nature, probably always would be. Facilitators preferred students who were noisy, argumentative or even rude to students who were quiet and overly polite; the 'tyranny of niceness' that prevents challenge and thus inhibits change (Robinson, 1995). The quiet and polite students did not challenge each other and therefore did not enter into discussion around topics, build up an argument or work through material to reach a conclusion. Facilitators tried to be provocative, often with little success. Students who lacked motivation were perceived to be 'hard work'. In particular students who had been enrolled nurses for many years or had several years' experience of being nursing auxiliaries or care assistants often lacked motivation. They felt that they had 'done the

job' and that the qualification was only a formality, which should not require much effort on their part. Attempting to encourage this section of the student group to think about alternatives required a great deal of input and a flexible approach that encouraged all of the students in a team.

Limitations of the study

The study was limited in that it took place on one site. The findings therefore reflect the culture of the Kingarth School of Nursing and Midwifery. The findings also reflect the way in which PBL was implemented by the School. The participants in the study were 'first wave' facilitators, people who had an interest in PBL. They were involved in the creation of PBL triggers and scenarios in addition to being facilitators and benefited from all of the continuing staff development by the external consultant. Their understanding of PBL and motivation to be successful facilitators was potentially greater than that of the 'fourth wave' facilitators, especially when, as with any new implementation, the novelty wore off. More involvement of students and the impact of the different facilitator approaches on the students' experience of PBL would have enhanced the study.

Recommendations for further research

This study has provided insights into the actual actions of PBL facilitators. The findings indicate that while PBL facilitation incorporates skills that teachers may already possess, the application of these skills to PBL requires practice over time. Follow-up research is needed to explore factors which enhance or delay this process, for example facilitator preparation, the amount of exposure to PBL, staff development whilst a facilitator and buddying schemes. Beliefs about the nature of student learning and its support not only

had an influence on the approach adopted by facilitators but also impacted on the ability to maintain a chosen approach. The influence of teachers' beliefs about PBL as a learning and teaching strategy on their facilitative approach requires to be explored further and in greater depth. In-depth comparison between the approaches of first wave enthusiasts and more sceptical third or fourth wave facilitators would have provided insight into this aspect as would exploration of the maintenance and development of an approach to facilitation when the initial enthusiasm had dissipated. The study followed teachers with a minimum of 10 years experience in nurse education. The experience of facilitators who are not only new to PBL but also new to teaching is worthy of investigation. New teachers are likely to possess a different set of beliefs and thus may have a different experience of facilitation. The research reinforced the impact of student frame factors on the PBL process, however there were indications that facilitators also had frame factors. Further work on this aspect is required to explore what the frame factors are for facilitators and the ways in which they influence the PBL process.

Within the wider field of PBL, further research is required to investigate the application of material learned from PBL scenarios in the practice context. Although learning theories that emphasise the importance of dialogue between student and teacher and among students support PBL, they do not explain how this knowledge is transferred into practice. Existing work on the development of a shared understanding of material in context relates to the context of the PBL seminar and not the context of practice. Research into the impact of PBL on practice is limited, particularly in disciplines other

than medicine. Such research should include further learning utilising the skills acquired from PBL.

Recommendations

Recommendations arising from the study fall into two categories: practicalities related to facilitating PBL and staff development for facilitators.

Recommendations Related to Facilitation in Practice

Some of the recommendations related to facilitation in practice support suggestions from the literature (Barrows, 1986, 1988; Creedy and Hand, 1994; Margetson, 1997; Maudsley, 1999; Savin-Baden, 2000; Mifflin *et al*, 2001). Recommendations related to cue consciousness in PBL, tailoring of approach elements to match student characteristics and timing of interventions have emerged from this research. Student-centred facilitation does not equate with teacher inaction. Employment of existing skills such as questioning, echoing and summarising is part of the facilitative process, however application of the skills is different. The overall purpose is not to impart knowledge and check understanding but to support students in identifying and fulfilling their own learning needs. The shift is towards the students taking responsibility for learning. Thus I would recommend that the following issues be attended to when promoting sound facilitation practices:

1. Flexibility and responsiveness to students and material in facilitating PBL.
2. Facilitators must adjust their approach in relation to the students' level and their ability to engage with the trigger material.

3. Questions asked by facilitators should be open and promote exploration of the subject rather than trying to elicit the expected response.
4. Ensure attentive listening: facilitators must follow the students' discussion and not attempt to impose their own agenda.
5. Be aware of non-verbal communication. Students in PBL sessions are cue-conscious and will watch the facilitator for signs that they are saying the 'right' thing. Facilitators may make positive use of body language, for example to encourage discussion without intervening. However they should remain aware of the effect of voice tone, facial expression and other non-verbal cues. Attentive listening (above) assists in creating positive non-verbal communication.
6. Achieve a balance between talking and remaining silent. Too much teacher talk will inhibit the PBL process and thus the development of lifelong learning and critical thinking skills. An over-eagerness to interrupt can cause dissatisfaction among the students who may then disengage from the PBL process. The use of narrative in particular requires careful consideration. Whilst narratives can assist in providing reality and linkage to practice, students may not perceive them to be relevant, especially if used frequently. Silences also require careful treatment. Students must be given time to assimilate trigger material and to consider concepts that are unfamiliar. Actual timing of the silence may be helpful initially. Likewise, unproductive silences should not become uncomfortable. Recognising when a silence is uncomfortable or 'too long' is an art that facilitators require to develop.
7. Prepare strategies for dealing with team dynamics and disjunction. Facilitator support groups can provide a useful source of ideas for handling dysfunction and disjunction.

8. Acknowledge and engage with frame factors. Issues will inevitably arise in relation to the student experience. Additionally learners, particularly those from non-traditional backgrounds, may have external demands and anxieties that will impinge on their progress through the programme. While there is a need to recognise frame factors, they do not have to be resolved within the PBL session.
9. Recognise that not all teachers will want to be facilitators. Programme managers should be alert to the risks of coercing staff into being facilitators. The negative experience for the students is likely to be more detrimental than a shortage of facilitators.
10. In-depth consideration should be given to placement of students within teams. Ideally students would be allocated to facilitators whose approach suits the students' characteristics and learning styles, for example students who are uncertain about their abilities might be matched with nurturing socialisers. In reality students at the start of a programme are an unknown quantity, however there may be opportunities for student: facilitator linkage when teams are being reconfigured.

There must also be recognition that students need time to develop PBL skills. As expertise in facilitating PBL takes time to acquire, so does engaging in the PBL process as a student. As discussed previously, many nursing students come from non-traditional backgrounds. Even those students who do enter the pre-registration programme directly from school or further education college may not have had experience of a problem-based approach and therefore will also be required to be supported in acquiring skills and confidence in the PBL strategy. For students new to PBL, modelling of expected behaviours, such as questioning and challenging peers, is essential. For this reason, programmes that intend to use PBL as a strategy should adopt it from the start of the

programme, using the principles of scaffolding to gradually withdraw teacher intervention as students become more aware of what is expected and more accustomed to learning through PBL. Facilitators should remember that increased support may be required at points in the programme where students have difficulty with the material or there are changes in the dynamic of the team.

Recommendations Related to Staff Development

While the research provided a wealth of detail on the practicalities of facilitating PBL, it also identified the need for staff development for facilitators on a continuing basis. Staff development is an essential and integral element in the success of a problem-based programme. Initial staff development with respect to PBL should be followed up with on-going development. Without on-going staff development PBL may fail to ‘get off the ground’ or once established it may become routine and poorly implemented. Thus it is important that:

1. Institutions desirous of implementing PBL should provide staff development for curriculum developers and prospective facilitators *prior* to the start of the programme. While an initial programme for facilitators will include practical elements such as facilitation skills, development of scenario material and facilitator guides, prospective facilitators should be encouraged to reflect on their current teaching practices and their beliefs about the nature of learning and the support of learning and where they think changes will be needed with respect to PBL. Ideally this reflection should be undertaken both individually and with colleagues.

2. Schools or departments should provide an on-going programme for new facilitators that includes the topics identified above, but also draws on the experience of running PBL within the department.
3. Support for facilitators also should be on-going. Facilitator support groups meeting on a regular basis, for example once or twice monthly, can open up communicative space to promote mutual reflection-on-practice and engender development. Reflection around facilitators' beliefs about learning and teaching, as well as their practical experience will assist in the transition towards student-centredness. A buddy system that pairs up facilitators will provide support and opportunities for peer evaluation of facilitation. Self-evaluation of performance through individual reflection, audiotaping and reviewing sessions or keeping a journal also assists in the shift towards facilitation rather than directive teaching.
4. In addition to on-going development through mutual support, follow-up 'master classes' or joint meetings with colleagues from other departments or institutions engaged in PBL helps to avoid the danger of facilitators becoming stale and losing interest in the strategy.

Conclusion

The model of facilitation developed from the findings of the study is dynamic, reflecting the need to adjust the approach to facilitation in response to student characteristics, content and the facilitators' own beliefs. The skills for facilitation can be readily acquired but, like other teaching skills, practice and reflection are required in order to develop expertise. For the new approach to be efficient and maintained, teachers who adopt the

different pedagogy will require to develop understanding of its application in context. The intuition of the expert has to be built up through repeated exposure to a range of situations. The new expertise does not plan out a lesson in advance complete with approximate timings, fixed content, set questions and humorous asides. This pedagogy is predictive, flexible and responsive with an awareness of where students are going and how they may be assisted to achieve *their* goals.

Students in higher education are more diverse than ever before. If the political agenda continues to promote a social inclusion programme through the Government's hold on higher education funding, there will be an increased need to recognise and respond to student diversity by developing flexible approaches to teaching and the support of learning, the social inclusion agenda thus becomes integrated with the educational agenda. To meet this combined agenda and attract and retain students, teachers in higher education will have to adopt learning and teaching strategies that engage students with learning rather than distancing them from it. PBL is a learning and teaching strategy that has the potential to fulfil this requirement to engage and motivate students. Becoming a PBL facilitator does not mean the demise of the teacher role but rather the espousing of different pedagogical concepts and the development of techniques to take on a new role in promoting learning.

REFERENCES

- Albanese, M.A., Mitchell, S. (1993) Problem-based Learning: A review of Literature on its Outcomes and Implementation Issues. *Academic Medicine* 68 (1): 52 -81
- Albanese, M. (2000) Problem-based learning: why curricula are likely to show little effect on knowledge or clinical skills *Medical Education* 34 (9): 729-738
- Alpert, I.L., Perkins, R.M., Driver, J.A., Kanter, S.L. (1999) Should students in Problem-based Learning Sessions Be Graded by the Facilitator? *Academic Medicine* 74 (11): 1256
- Alvesson, M. and Skoldberg, K. (2000) *Reflexive Methodology* London, Sage
- Andrews, M. and Jones, P. (1996) Problem-based learning in an undergraduate nursing programme: a case study *Journal of Advanced Nursing* 23:357-365
- Argyris, C. and Schön, D.A. (1974) *Theory in Practice: Increasing Professional Effectiveness* San Francisco, Jossey-Bass
- Atkinson, P. and Hammersley, M. (1994) Ethnography and Participant Observation in N.K. Denzin and Y.S.Lincoln, (eds) (1994) *Handbook of Qualitative Research* Thousand Oaks California, Sage
- Barnett, R. (1994) *The Limits of Competence: Higher Education and Society*. Buckingham, SRHE / Open University Press
- Baroffio, A., Kayser, B., Vermeulen, B., Jaquet, J., Vu, N.V. (1999) Improvement of Tutorial Skills: an effect of workshops or experience? *Academic Medicine* 74 (10): S75 - S77
- Barrows, H.S., Tamblyn, R.M. (1980) *Problem-based Learning : An Approach to Medical Education*. New York, Springer Series on Medical Education Springer Publishing Company
- Barrows, H.S. (1986) A Taxonomy of problem-based learning methods. *Medical Education* 20:481-486
- Barrows, H.S. (1988) *The Tutorial Process*. Springfield Illinois, Southern Illinois University School of Medicine
- Blair, T. (1996) *Speech at the Labour Party Conference*, 1 October 1996
- Beaty, L. (1998) The Professional Development of Teachers in Higher Education: Structure, Methods and Responsibilities *Innovations in Education and Training International* 35 (2): 99-107

- Bechtel, G.A., Davidhizar, R., Bradshaw, M.J. (1999) Problem-based learning in a competency based world *Nurse Education Today* 19: 182 -187
- Belenky, M.F., Clinchy, B.M., Goldberger, N.R., Tarule, J.M. (1986) *Women's ways of knowing: The development of self, voice and mind* New York, Basic Books
- Bentz, V.M. & Shapiro, J.J. (1998) *Mindful Inquiry in Social Research* Thousand Oaks, Sage
- Bevis, E., Watson, J. (1989) *Towards a Caring Curriculum: A new pedagogy for nursing* New York, National League for Nursing
- Biggs, J.B. (1988) The Role of Metacognition in Enhancing Learning *Australian Journal of Education* 32: (2) 127-138
- Biggs, J. (1999) *Teaching for Quality Learning at University* Buckingham, SRHE / Open University Press
- Biley, F.C., Smith K.L. (1999) Following the forsaken: A procedural description of a problem-based learning program in a school of nursing studies. *Nursing and Health Studies* 1: 93-102
- Bleakley, A. (2001) From Lifelong Learning to Lifelong Teaching: teaching as a call to style *Teaching in Higher Education* 6 (1): 113-117
- Bloor, M. (1997) Techniques of Validation in Qualitative Research: A Critical Commentary in G. Miller and R. Dingwall (eds) (1997) *Context and Method in Qualitative Research* London, Sage
- Bloor, M., Frankland, J., Thomas, M., Robson, K. (2001) *Focus Groups in Social Research* London, Sage
- Bowler, I. (1997) Problems with Interviewing: Experiences with Service providers and Clients in G. Miller and R. Dingwall (eds) (1997) *Context and Method in Qualitative Research* London, Sage
- Brockbank, A., McGill, I. (1998) *Facilitating Reflective Learning in Higher Education* Buckingham SRHE / Open University Press
- Brookfield, S. (1986) *Understanding and Facilitating Adult Learning* Milton Keynes, Open University Press
- Boud, D. (ed) (1985) *Problem-based Learning in Education for the Professions* Sydney, Higher Education Research and Development Society of Australia

- Boud, D., Feletti, G. eds (1997) *The Challenge of Problem-based Learning*. Second edition. London. Kogan Page
- Bruner, J. (1961) *The Process of Education* Cambridge, Mass. Harvard University Press
- Bryman, A. (1988) *Quantity and Quality in Social Research* London, Unwin Hyman
- Bryman, A. (2001) *Social Research Methods* Oxford, Oxford University Press
- Clandinin, D.J. and Connelly, F.M. (1998) Personal Experience Methods in N.K.Denzin and Y.S. Lincoln (eds) (1998) *Collecting and Interpreting Qualitative Materials* Thousand Oaks California, Sage
- Colliver, J. (2000) Effectiveness of problem based learning *Academic Medicine* **75** (7): 259-66
- Coumeya, C-A. (2001) Too little, too late? in P.Schwartz, S. Mennin, G.Webb (eds) (2001) *Problem-based Learning. Case Studies, Experience and Practice* London, Kogan Page
- Creedy, D., Hand, B. (1994) The implementation of problem-based learning: changing pedagogy in nurse education *Journal of Advanced Nursing* **20** (4): 696-702
- Dahlgren, M.A., Castensson, R., Dahlgren, L.O. (1998) PBL from the teachers' perspective: Conceptions of the tutor's role within problem-based learning *Higher Education* **34** (4): 437-447
- Davis, C. (1995) *Gender and the Professional Predicament* Buckingham, Open University Press
- De Grave, W., Dolmans, D. H. J. M., van der Vleuten, C. P. M. (1998) Tutor intervention profile: reliability and validity *Medical Education* **32**: 262-268
- De Grave, W., Dolmans, D. H. J. M., van der Vleuten, C. P. M. (1999) Profiles of effective tutors in problem-based learning: scaffolding student learning *Medical Education* **33** : 901-906
- Denzin, N.K. (1989) *Interpretive Interactionism*. Applied Social Research Methods Series Volume 16 London Sage
- Denzin, N.K. (1998) The Art and Politics of Interpretation in N.K.Denzin and Y.S.Lincoln (eds) (1998) *Collecting and Interpreting Qualitative Materials* Thousand Oaks California, Sage

- Denzin, N.K. and Lincoln, Y.S. (eds) (1994) *Handbook of Qualitative Research*. Thousand Oaks California, Sage
- Denzin, N.K. and Lincoln, Y.S. (eds) (1998) *Collecting and Interpreting Qualitative Materials* Thousand Oaks California, Sage
- Department for Education and Employment (1998) *The Learning Age: A Renaissance for a New Britain*. London, HMSO
- Des Marchais, J.E. and Chaput, M. (1993) Validation by Network and Sherbrooke Tutors of Problem-based Learning Tasks in P.A.J.Bouhuijs, H.G. Schmidt, H.J.M. van Berkel (eds) (1993) *Problem-based Learning as an Educational Strategy* Maastricht, Network Publications
- Dewey, J. (1938) *Experience and Education* New York, collier and Kappa Delta Pi
- Dingwall, R. (1997) Accounts, Interviews and Observations in G. Miller and R. Dingwall (eds) (1997) *Context and Method in Qualitative Research* London, Sage
- Dolmans, D.H.J.M., Schmidt, H.G. (1994a) What drives the student in problem-based learning? *Medical Education* **28**:372-380
- Dolmans, D.H.J.M., Wolfhagen, I.A.P., Schmidt, H.G. van der Vleuten, C.P.M. (1994b) A rating scale for tutor evaluation in a problem-based curriculum: validity and reliability *Medical Education* **28**:550-558
- Dolmans, D.H.J.M., Wolfhagen, I.A.P., Snellen-Balendong, H.A.M. (1994c) Improving the effectiveness of tutors in problem-based learning *Medical Teacher* **16** (4):369-377
- Doucet, M.D., Purdy, R.A., Kaufman, D.M., Langille, D.B. (1998) Comparison of problem-based learning and lecture format in continuing medical education education on headache diagnosis and management *Medical Education* **32**: 590-596
- Dreyfus, S.E. and Dreyfus, H.L. (1979) *The scope, limits, and training implications of three models of aircraft pilot emergency response behaviour* Berkeley, USAF / University of California
- Drummond -Young, M. (1998) Educating Educators in Problem-Based Learning *The Canadian Nurse* November 1998 47-48
- Eden, C. and Radford, J. (1990) *Tackling Strategic Problems: The Role of Group Decision Support* London, Sage
- Egan, K. (1978) Some presuppositions that determine curriculum decisions *Curriculum Studies* **10** (2):123-133

- Ellis, C. (1993) Telling a story of sudden death *Sociological Quarterly* **34** :711-730
- Elton, L. (1994) *Management of Teaching and Learning: Towards Change in Universities* London, Committee of Vice-Chancellors and Principles
- Elton, L. (1999) New ways of learning in higher education: Managing the change *tertiary Education and Management* **5**: 207- 225
- Elton, L. (2000) Turning Academics into Teachers: a discourse on love *Teaching in Higher Education* **5** (2): 257-260
- Entwistle, N. (1988) Motivational factors in students' approaches to learning in R. Schmech (ed) *learning Strategies and Learning Styles* new York, Plenum
- Eraut, M. (1994) *Developing Professional Knowledge and Competence*. London, Falmer Press
- Feletti, G. (1993) Inquiry-based and Problem-based Learning: How similar are these approaches to nursing and medical education? *Higher Education Research and Development* **12** (2):143-156
- Festinger, L.A. (1957) *A Theory of Cognitive Dissonance* Evanston IL, Row, Peterson
- Field, P.A. and Morse, J. (1985) *The Application of Qualitative Approaches* Aspen, Rockville MD
- Finlay, L. (2002, forthcoming) Negotiating the Swamp: the opportunity and challenge of reflexivity in research *Qualitative Research*
- Freire, P. (1972) *Pedagogy of the Oppressed* London, Penguin Books
- Frost, M. (1996) An analysis of the scope and value of problem-based learning in the education of health care professionals. *Journal of Advanced Nursing* **24**:1047-1053
- Gallimore, R. and Tharp, R. (1990) Teaching Mind in Society: Teaching, schooling and literate discourse in L.C. Moll (ed) (1990) *Vygotsky and Education Instructional Implications and Applications of Sociohistorical Psychology* Cambridge, Cambridge University Press
- Garfinkel, E. (1967) *Studies in Ethnomethodology* Englewood Cliffs, Prentice-Hall
- Gibbs, G. (1981) *Teaching Students to Learn* Milton Keynes, Open University Press
- Gibbs, G. (1992) *Improving the Quality of Student Learning* Bristol, Technical and Educational Services

- General Medical Council (1993) *Tomorrow's Doctors: Recommendations on undergraduate medical education* London GMC
- Glasser, W. (1986) *Control Theory in the Classroom* New York Harper and Row
- Glen, S. (1995) Developing Critical Thinking in Higher Education *Nurse Education Today* 15: 170 -176
- Glen, S. (1999) Health Care Education for Dialogue and Dialogic Relationships *Nursing Ethics* 6 (1):3-11
- Guba, E.G. & Lincoln, Y.S. (1994) Competing Paradigms in Qualitative Research in N.K. Denzin and Y.S. Lincoln (eds) (1994) *Handbook of Qualitative Research*. Thousand Oaks California, Sage
- Gubrium, J. and Holstein, J. (1997) *The New Language of Qualitative Method* New York, Oxford University Press
- Habermas, J. (1986) *The Theory of Communicative Action, Volume 2, System and Lifeworld: A Critique of Functionalist Reason* Boston, Beacon Press
- Habermas, J. (1996) *Between Facts and Norms* Oxford, Polity Press
- Haggis, T. (May 2002, forthcoming) Exploring the 'black box' of process: a comparison of theoretical notions of the 'adult learner' with accounts of postgraduate learning experience *Studies in Higher Education*
- Haith-Cooper, M., (2000) Problem-based learning within health professional education: What is the role of the lecturer? A review of the literature *Nurse Education Today* 20: 267-272
- Hak, T. and Maguire, P. (2000) Group Process: The Black Box of Studies on Problem-based Learning *Academic Medicine* 75 (7): 769-772
- Hammersley, M. and Atkinson, P. (1995) *Ethnography: Principles in Practice* London, Routledge
- Hay, J. (1997) An Investigation of a Tutor Evaluation Scale for Formative Purposes in a Problem-Based Learning Curriculum *The American Journal of Occupational Therapy* 51 (2): 140-143
- Heron, J. (1989) *The Facilitator's Handbook* London, Kogan Page
- Heron, J. (1999) *The Facilitator's Handbook* 2nd edition London, Kogan Page

- Hickie, S. (1998) *Information Base on Arrangements which support the Development of Clinical Practice in Pre-Registration Nursing Programmes in Scotland* Edinburgh, National Board for Nursing, Midwifery and Health Visiting for Scotland
- Hislop, S., Inglis, B., Cope, P., Stoddart, B., McIntosh, C. (1996) Situating Theory in Practice: Student Views of Theory and Practice in Project 2000 Nursing Programmes *Journal of Advanced Nursing* **23**: 171-177
- Hofer, B.K. & Pintrich, P. (1997) The Development of Epistemological Theories: Beliefs About Knowledge and Knowing and Their Relation to Learning *Review of Educational Research* **67**: (1) 88-140
- Hogan, K., Pressley, M. eds (1997) *Scaffolding Student Learning: Instructional Approaches and Issues* Cambridge, Mass. Brookline Books
- Holstein, J. and Gubrium, J. (1995) *The Active Interview* Thousand Oaks Sage
- Hughes, T. (1966) *The Thought Fox* in T. Gunn and T Hughes (1966) *Selected Poems* London Faber
- Jacobsen, D. Y. (1997). *Tutorial Processes in a Problem-based Learning Context*. Unpublished Thesis Department of Education Trondheim, Norwegian University of Science and Technology
- Johnson, S.M., Finucane, P.M., Prideaux, D.J. (1999) Problem-based learning: process and practice *Australia and New Zealand Journal of Medicine* **29**: 350-355
- Jaques, D. (1992) *Learning in Groups* London, Croom Helm
- Jarvis, P (1987) *Adult Learning in the Social Context* Beckenham, Croom Helm
- Katz, G. (1995) Facilitation in C. Alavi (ed) (1995) *Problem-based Learning in a Health Sciences Curriculum*. London, Routledge
- Kaplowitz, L.E. and Block, S.D. (1998) Gender-Related Group Dynamics in Problem-Based Learning *Academic Psychiatry* **22**:197-202
- Kaufmann, D.M. and Mann, K.V. (1996) Comparing Students' Attitudes in Problem-based and Conventional Curricula *Academic Medicine* **70** (10):1096-1099
- Kaufmann, D.M. and Holmes, D.B. (1998) The relationship of tutors' content expertise to interventions and perceptions in a PBL medical curriculum *Medical Education* **32** :255 - 261
- Knowles, M. (1975) *Self-directed Learning. Guide for Learners and Teachers* Toronto, Prentice Hall

- Kolb, D. (1984) *Experiential Learning: Experience as the source of learning and development* Englewood Cliffs NJ, Prentice Hall
- Koschmann, T., Glenn, P., Conlee, M. (1997) Analyzing the Emergence of a Learning Issue in a Problem-based Learning Meeting *Medical Education Online (serial online)* 2:2 <http://www.utmb.edu/meo/> accessed on 14/09/01
- Kramer, M. (1974) *Reality Shock: Why nurses leave nursing* St Louis, Moseby
- Krueger, R.A., (1994) *Focus Groups: A Practical Guide for Applied Research* 2nd Edition Thousand Oaks, Sage
- Kvale, S. (1996) *Interviews: an introduction to qualitative research interviewing* Thousand Oaks Sage
- Lieblich, A., Tuval-Mashiach, R., Zilber, T. (1998) *Narrative Research: Reading, Interpretation and Analysis* Applied Social Research Methods Series, Thousand Oaks, Sage
- Lévi-Strauss, C. (1966) *The Savage Mind* 2nd edition Chicago, Chicago University Press
- Lewin, K.(1948) *Resolving Social Conflicts* New York, Harper
- Lewin, K. (1951) *Field Theory in Social Science* New York, Harper
- Linek, W.M., Nelson, O.G., Sampson, M.B., Zeek, C.K., Mohr, K.A.J., Hughes, L. (1999) Developing beliefs about literacy instruction: A cross case analysis of preservice teachers in traditional and field settings *Reading research and Instruction* 38 (4) : 371 - 386
- McCillick, B.A. (2001) Practioners' perspectives on Values, Knowledge and Skills needed by PETE Participants *Journal of Teaching in Physical Education* 21: 35-56
- McFalls, E.L. and Cobb-Roberts, D., Reducing Resistance to Diversity through Cognitive Dissonance Instruction: Implications for teacher education *Journal of Teacher Education* 52 (2): 164-172
- Margetson, D. (1994) Current Educational Reform and the Significance of Problem-based Learning *Studies in Higher Education* 19 (1):5-19
- Margetson, D. (1997) *Wholeness and educative learning: the question of problems in changing to problem-based learning*. Paper Changing to PBL Conference, Brunel University, September 1997

- Martin, E., Benjamin, J., Prosser, M., Trigwell, K. (1999) Scholarship of Teaching: a study of the approaches of academic staff in C.Rust (ed) (1999) *Improving Student Learning: Improving Student Learning Outcomes*, 6th National Symposium Oxford Centre for Staff and Learning Development Oxford Oxonian Rewley Press Ltd
- Marton, F. and Säljö, R. (1976) On qualitative differences in learning. I. Outcome and Process *British Journal of Educational Psychology* **46**: 4-11
- Mann, S.J. (2001) Alternative Perspectives on the Student Experience: alienation and engagement *Studies in Higher Education* **26** (1) : 7-19
- Mason, J. (1996) *Qualitative Researching* London, Sage
- Maudsley, G. (1999) Roles and responsibilities of the problem based tutor in the undergraduate medical curriculum *BMJ* **318**: 657-661
- Melia, K.M. (1997) Producing 'Plausible Stories': Interviewing Student Nurses in G. Miller and R. Dingwall (eds) (1997) *Context and Method in Qualitative Research* London, Sage
- Mezirow, J. (1981) A critical theory of adult learning and education *Adult Education* **32**:3-24
- Mifflin, B.M., Campbell, C.B., Price, D.A. (2000) A conceptual framework to guide the development of self-directed, lifelong learning in problem-based medical curricula *Medical Education* **34**: 299-306
- Mifflin, B.M. and Price, D.A. (2001) Why does the department have professors if they don't teach? in P.Schwartz, S. Mennin, G. Webb (eds) (2001) *Problem-based Learning. Case Studies, Experience and Practice* London Kogan Page
- Miller, C.M.L. and Parlett, M. (1976) *The Process of Schooling* Open University Press
- Mpofu, D.J.S., Das, M., Stewart, T., Dunn, E.& Schmidt, H. (1998) Perceptions of group dynamics in problem-based learning sessions: a time to reflect on group issues *Medical Teacher* **20** (5):421-427
- Murray, I. and Savin-Baden, M. (2000) Staff Development in Problem-based Learning, *Teaching in Higher Education* **5** (1): 23 -27
- National Board for Nursing, Midwifery and Health Visiting for Scotland (1997) *Report of the Monitoring and Review Committee* Edinburgh NBS
- National Committee of Enquiry into Higher Education, Dearing, R (Chairman) (1997) *Higher Education in the Learning Society*, London, HMSO

- National Committee of Enquiry into Higher Education, Garrick, R (Chairman, Scottish Committee) (1997) *Higher Education in the Learning Society: Report of the Scottish Committee*, Edinburgh, HMSO
- Neville, A.J. (1999) The problem-based learning tutor: Teacher? Facilitator? Evaluator? *Medical Teacher* **21**(4): 393-401
- Neufeld, V.R. & Barrows, H.S. (1974) The McMaster Philosophy: An Approach to Medical Education *Journal of Medical Education* **49**: 1040-1050
- Neufeld, V.R., Woodward, C.A., MacLeod, S.M. (1989) The McMaster MD Program: A Case Study Renewal in Medical Education *Academic Medicine* **64**: 423-443
- Niemi, H. & Kemmis, S. (1999). Communicative Evaluation. *Lifelong Learning in Europe* **4**(1): 55-64.
- Norman, R. and Schmidt, H.G. (1992) The Psychological Basis of Problem-based Learning; A Review of the Evidence *Academic Medicine* **67** (9):557-565
- Norman, R. and Schmidt, H.G. (2000) Effectiveness of problem-based learning curricula: theory, practice and paper darts *Medical Education* **34** (9): 721-728
- Oliffe, J. (2000) Facilitation in PBL - Espoused Theory versus Theory in Use. Reflections of a first time user *Australian Electronic Journal of Nursing Education* **5**(2) http://www.scu.edu.au/schools/nhcp/aejne/vol5-2/oliffejvol5_2.html accessed on 07/06/01
- Olmesdahl, P.J. and Manning, D.M. (1999) Impact of training on PBL facilitators *Medical Education* **33**: 753-755
- Pansini-Murrell, J. (1996) Incorporating problem-based learning: striving towards women-centred care *British Journal of Midwifery* **4** (9): 479-482
- Patel, V.L., Groen, G.J., Norman, G.R. (1991) Effects of Conventional and Problem-based Medical Curricula on Problem Solving *Academic Medicine* **66** (7): 380-389
- Patton, M. Q. (1987). *How to use Qualitative Methods in Evaluation* London, Sage
- Patton, M. Q. (1990). *Qualitative Evaluation and Research Methods*. Newbury Park, Sage.
- Perry, W.G. (1970) *Forms of Intellectual and Ethical Development in the College Years: A Scheme* New York, Holt, Rinehart and Winston
- Phillips, L.D. and Phillips, M.C. (1993) Facilitated Work Groups: Theory and Practice. *Journal of Operational Research Society* **44**(6): 533-549

- Polit, D. F. and B. P. Hunglar (1995). *Nursing Research: Principles and Method*. Philadelphia, J B Lippencott Company.
- Prosser, M. & Trigwell, K. (1999) *Understanding Learning and Teaching* Buckingham, SRHE / Open University Press
- Quinlan, K. (2000) Generating Productive Learning Issues in PBL Tutorials: An Exercise to Help Tutors Help Students *Medical Education Online (serial online)* 5:2
<http://www.med-ed-online.org> accessed 14/09/01
- Ramsden, P. (1992) *Learning to Teach in Higher Education* London Routledge
- Rando, W.C. and Menges, R.J. (1991) How Practice Is Shaped By Personal Theories in R.Menges and M.Svinicki (eds) (1991) *College Teaching: From Theory to Practice* New Directions for Learning and Teaching no 45 San Francisco, Jossey-Bass Inc.
- Robinson, A. (1995) Transformative ‘cultural shifts’ in nursing: participatory action research and the ‘project of possibility’ *Nursing Inquiry* 2:65-74
- Rogers, C. (1969) *Freedom to Learn* Ohio, Merrill
- Rogers, C. (1983) *Freedom to Learn for the ‘80s’* Columbus, Ohio, Merrill
- Rogers, C. & Freiberg, H.J. (1994) *Freedom to Learn* 3rd edition, New York Merrill
- Roper, N., Logan, W., Tierney, A. (1986) *The Elements of Nursing* Edinburgh Churchill Livinstone
- Runciman, P., B. Dewar, et al. (1998). *Employers' Needs and the Skills of Newly Qualified Project 2000 Staff Nurses* NBS Research Report, Edinburgh, Queen Margaret College.
- Sacks, H. (1984) On doing “being ordinary” in J.M.Atkinson and J. Heritage (eds) *Structures of Social Action: Studies in Conversation Analysis* Cambridge, Cambridge University Press
- Sadlo, G. (1995) Problem-based Learning *Tertiary Education News* 5 (6): 8-10
- Savin-Baden, M. (2000). *Problem-Based learning in Higher Education: Untold Stories*. Buckingham, SRHE / Open University Press
- Schmidt, H.G. (1983) Problem-based Learning: Rationale and Description *Medical Education* 17: 11-16

Schmidt, H.G. (1994) Resolving Inconsistencies in Tutor Expertise Research: Does Lack of Structure Cause Students to Seek Tutor Guidance? *Academic Medicine* 69(8) 656-662

Schmidt, H.G., Moust, J.H.C. (1995) What Makes a Tutor Effective? A structural-Equation Modeling Approach to Learning in Problem-based Curricula *Academic Medicine* 70(8): 708-714

Schön, D. (1987) *Educating the Reflective Practitioner* London, Jossey-Bass

Schwandt, T.A. (1994) Constructivist, Interpretist Approaches to Human Inquiry in N.K. Denzin and Y.S. Lincoln, Y.S. eds (1994) *Handbook of Qualitative Research* Thousand Oaks California, Sage

Schwartz, P., Mennin, S., Webb, G. (eds) (2001) *Problem-based Learning. Case Studies, Experience and Practice* London, Kogan Page

Scott, G. (1997) Diploma Nurses Need Extra Year to Gain Clinical Skills *Nursing Standard* 12 (1): 5

Shin, J.H., Haynes, B. Johnston, M.E. (1993) Effect of problem-based, self-directed undergraduate education on life-long learning *Canadian Medical Association Journal* 146 (6): 969-976

Shotter, J. (1993). *Conversational Realities: Constructing Life through Language*. London, Sage.

Silins, H.C. and Murray-Harvey, R. (1994) Effective Facilitation in Problem-based Learning in M. Ostwald and A.Kingsland (eds) (1994) *Research and Development in PBL Volume 2: The Australian Problem-based Learning Network Proceedings of the Second Annual Conference* Sydney, Charles Stuart University Press

Silverman, D. (1993) *Interpreting Qualitative Data: Methods for Analysing Talk, Text and Interaction* London, Sage

Silverman, D. (2001) *Interpreting Qualitative Data* 3rd edition London, Sage

Strauss, A. & Corbin, J. (1990) *Basics of Qualitative Research: Grounded Theory Research and Techniques* Newbury Park, Sage

Stake, R. (1995) *The Art of Case Study Research* Thousand Oaks, Sage

Taylor, M. (1986). Learning for Self-direction in the Classroom: the pattern of a transition process *Studies in Higher Education* 11(1): 55-71.

Taylor, I. (1997) *Developing Learning in Professional Education* Buckingham, SRHE / Open University Press

- Thomas, M.L., Snaddon, D., Carlisle, S. (1998) 'When the talking starts': a framework for analysing tutorials *Medical Education* **32**: 502-506
- Tiberious, R.G. and Bethson, J.M. (1991) The Social Context of Teaching and Learning in R.Menges and M. Svinicki (eds) (1991) *College Teaching: From Theory to Practice* New Directions for Learning and Teaching no 45 San Francisco, Jossey-Bass Inc.
- Tipping, J., Freeman, R.F., Rachlis, A.R. (1995) Using Faculty and Student Perceptions of Group Dynamics to Develop Recommendations for PBL Training *Academic Medicine* **70** (11): 1050-1052
- United Kingdom Central Council for Nursing, Midwifery and Health Visiting (1986) *Project 2000: A New Preparation for Practice*, London, UKCC
- UKCC Commission for Nursing and Midwifery Education (Chairman Peach, L) (1999) *Fitness for practice* London, UKCC
- Usher, R., Bryant, I., Johnston, R. (1997) *Adult Education and the Postmodern Challenge: Learning beyond the limits* London, Routledge
- Valle, R., Petra, I., Martinez-González, A., Rojas-Ramirez, A., Morales-Lopez, Piña-Garza, B. (1999) Assessment of student performance in problem-based learning tutorial sessions *Medical Education* **33**: 818-822
- Vernon, D.T.A. & Blake, R.L. (1993) Does Problem-based Learning work? A Meta-analysis of Evaluative research *Academic Medicine* **68** (7): 550-563
- Vernon, D.T.A. (1995) Attitudes and Opinions of Faculty Tutors about Problem-based Learning *Academic Medicine* **70** (3): 216-223
- Vygotsky, L. S. (1962) *Thought and Language* Cambridge, MA, MIT Press
- Vygotsky, L.S. (1978) *Mind in Society: The development of higher psychological processes* Cole, M, John-Steiner, V., Scribner, S., Souberman, S. (eds) Cambridge, MA, MIT Press
- Walsh, M. (1997) Accountability and Intuition: Justifying Nursing Practice *Nursing Standard* **11**: (23) 39-41
- Weil, S. (1986) Non traditional learners within higher education institutions: discovery and disappointment. *Studies in Higher Education* **11** (3) : 219-35
- Wenzlaff, R.M. and LePage, J.P. (2000) The Emotional Impact of Chosen and Imposed Thoughts *Personality and Social Bulletin* **26** (12):1502-1514

Wetzel, M. (1996) Techniques in medical education: problem-based learning
Postgraduate Medical Journal **72**: 474-477

WHO (1993). *Increasing the relevance of education for health professionals*. Technical Report Series 838 Geneva, WHO.

Wilkerson, L., Hafler, J.P., Liu, P. (1991). A Case Study of Student-directed Discussion in Four Problem-based Tutorial Groups. *Academic Medicine* **66** (9): 579 -581.

Wilkerson, L. (1996) Tutors and Small Groups in Problem-based Learning: Lessons from the literature in L.Wilkerson and W. Gijssels (eds) (1996) *Bringing Problem-based Learning to Higher Education Theory and Practice* San Francisco, Jossey-Bass

Wolcott, H. (1994) *Transforming Qualitative Data Description, Analysis and Interpretation* Thousand Oaks, Sage

World Bank (1993) *World Development Report 1993: Investing in Health* Oxford, Oxford University Press for the World Bank

World Medical Association (1967) Helsinki Declaration, second revision, WMA

BIBLIOGRAPHY

- Alavi, C., ed (1995) *Problem-based Learning in a Health Sciences Curriculum*. London. Routledge
- Balla, J., Gow, L. (1992) Evaluation of Student Performance: a problem-based solution paper *Problem-based Learning Conference University of Sydney, December 6 -9 1992*
- Barnett, R. (1997) *Higher Education: A Critical Business*. Buckingham SRHE / OU
- Barrows, H.S., Peckill, G.C. (1991) *Developing Clinical Learning Skills* New York W.W. Norton & Co
- Barrows, H.S. (1997) Challenges of Changing from Subject-based to Problem-based Learning paper *Changing to PBL, Conference, Brunel University September 1997*
- Beaty, L. (1995) Working Across the Hierarchy in A. Brew (ed) (1995) *Directions in Staff Development* Buckingham Society for research into Higher Education / OUP
- Bhaskar, R. (1989) *Reclaiming Reality*. London Verso
- Biley, F.C. (1998) Evaluating a Welsh Undergraduate Nursing PBL Programme : a short report *Probe* 18 12-13
- Bligh, J., Lloyd-Jones, G., Smith, G. (2000) Early effects of a new problem-based clinically orientated curriculum on students' perceptions of teaching 34 (6): 487-489
- Booth, W.C., Colomb, G.G., Williams, J.M. (1995) *The Craft of Research* Chicago, University of Chicago Press
- Boud, D., Feletti, G. eds (1997) *The Challenge of Problem-based Learning*. Second edition. London. Kogan Page
- Bouhuijs, A.J., Schmidt, H.G., van Berkel, H.J.M. (eds) (1993) *Problem-Based Learning as an Educational Strategy* Maastricht, Network Publications
- Callaghan, J. (1998) Exploring PBL: a personal experience *Probe* 18:10 -11
- Camp, G. (1996) Problem-based Learning: A paradigm shift or passing fad *Medical Education Outlook* 1:2
- Carr, W., Kemmis, S. (1986) *Becoming Critical: Education, Knowledge and Action Research* Lewes, Falmer Press
- Chesney, M. (2000) Dilemmas of Self in the Method *Qualitative Health Research* 11 (1): 127-135

- Clarke, R. (1983). A new medical school in Australia. in G. Collier (ed). *The Management of Peer-Group Learning*. Guildford, SRHE.
- English National Board for Nursing, Midwifery and Health Visiting (1998) *Developments in the use of an evidence and/or enquiry-based approach in Nursing, Midwifery and Health Visiting Programmes of Education* London. ENB
- Field, P.A. & Morse, J. (1985) *Nursing Research: the Application of Qualitative Approaches* Rockville MD: Aspen
- Gibbons, M., C. Limoges, et al. (1994). *The New Production of Knowledge*. London, Sage
- Glen, S. & Wilkie, K. (eds) (2000) *Implementing Problem-based Learning in Nursing* Basingstoke, Macmillan
- Healey, M. (2001) The Scholarship of Teaching in Higher Education: An Evolving Idea <https://www.ilt.ac.uk/port> accessed 14/09/01
- Hevern, V.W. (1997) Narrative Psychology: Internet and Resource Guide (online) Syracuse NY [hppt://maple.lemoyne.edu/~hevern/narpsych.html](http://maple.lemoyne.edu/~hevern/narpsych.html) accessed 27/04/00
- Hult, M. & Lennungs, S. (1980) Towards a definition of action research *Journal of Management Studies* 17 (2): 241-250
- Laisnitsarekul, B., Varavithya, C., Ruamsuke, S., (1993) Classroom Interaction between Teacher and New Track Medical Students In Bouhuis, Schmidt, H.G. and van Berkel (eds) *PBL as an Educational Strategy* Maastricht, Network Publications
- Lave, J. (1988) *Cognition in Practice* Cambridge, Cambridge University Press
- McClune, V. (2000) The development of first year university students' approaches to studying *Unpublished PhD Thesis* University of Edinburgh
- McTaggart, R. (1988) *Action Research: a short modern history* Geelong, Deakin University Press
- Menges, R., Svinicki, M. eds (1991) *College Teaching: From Theory to Practice* New Directions for Learning and Teaching no 45 San Francisco, Jossey-Bass Inc.
- Miller, G. & Dingwall, R. (eds) (1997) *Context and Method in Qualitative Research* London, Sage
- Moore-West, M., Harrington, D.L., Mennin, S.P., Kaufmann, A. & Skipper, B.J. (1989) Distress and Attitudes Towards the Learning Environment: Effects of a Curriculum Innovation *Teaching and Learning in Medicine* 1(3):151-157

- Nicholls, G. (2001) *Professional Development in Higher Education* London, Kogan Page
- Norris, N. (1990). *Understanding Education Research*. London, Kogan Page.
- Norman, R. and Schmidt, H.G. (1992) The Psychological Basis of Problem-based Learning: A Review of the Evidence. *Academic Medicine* **67** (9):557 -565
- Norris, N. (1990) *Understanding Education Research* London Kogan Page
- Pallie, W. & Carr, D.H. (1987) The McMaster Medical Education Philosophy in Theory, Practice and Historical Perspective *Medical Teacher* **9** (1):59-71
- Ramsden, P. (1992) *Learning to Teach in Higher Education* London Routledge
- Sadlo, G. (1997) Problem-based Learning Enhances the Educational Experiences of Occupational Therapy Students *Education for Health* **10** (1):101-104
- Savery, J.R. & Duffy, T. (1995) Problem-based Learning: An Instructional Model and its Constructivist Framework *Educational Technology* September / October 1995 31-23
- Savin-Baden, M. (1996) *Problem-based learning; a catalyst for enabling and disabling disjunction prompting transitions in learner stances* Unpublished PhD Thesis University of London, Institute of Education
- Sinclair, M., Brown, G., Jones, A. (1999) Project-based Learning in Midwifery *The Practising Midwife* **2** (2): 19-21
- Stephan, W.G., Finlay, K. (1999) The Role of Empathy in Improving Intergroup Relations *Journal of Social Issues* **55** (4):729-743
- Van Manen, M. (1997) *Researching Lived Experience: Human Science for an Action Sensitive Pedagogy* 2nd edition London Ontario, The Athlone Press
- Wolff, A. C. (1998). *The Role of the Tutor in Context-based Learning. An Orientation Guide for Nursing Faculty*. Alberta, University of Alberta.

APPENDICES

Appendix One

GLOSSARY

GLOSSARY

BRANCH PROGRAMME: the second 18 months period of the pre-registration Diploma of Higher Education in Nursing. This part of the programme focuses on the clinical area for which students are being trained: adult, child, mental health or learning disabilities.

CLINICAL TEACHER: (now obsolete) nurse educator who was attached to a ward or unit and undertook teaching in the clinical area. Teaching was centred around practical patient / client care

COMMON FOUNDATION PROGRAMME (CFP): the first 18 months of the pre-registration Diploma of Higher Education in Nursing. This part of the programme includes the knowledge and skills that are shared by all branches of nursing.

FACILITATOR: member of teaching staff allocated to PBL team to assist in working through the situation and to help with identifying learning needs. The facilitator will not provide answers nor give tutorials to the team, but will assist them in focussing on their learning requirements. As the programme progresses, students will be encouraged to become proficient and independent in identifying learning needs associated with situations and in transferring these techniques to practice.

FACILITATOR PACKAGE: set of identical material provided for each facilitator by the lecturers who compile the situation. Should contain student and lecturer objectives, references, expected questions / answers, facilitator and student evaluation / reflection forms etc.

FEEDBACK SESSION: the last in a series of three PBL seminars focusing on one scenario.

Students bring back their learning about an identified topic. The material is shared and integrated to resolve the problem or improve the situation

FIXED RESOURCE: additional material available to the student to assist with learning. Fixed resources take a variety of forms e.g. lectures, tutorials, clinical skills sessions, open learning packages, CAL programmes, journal articles, books, videos etc

FRAME FACTORS: issues that are of concern to students, but are not related to the scenario being discussed.

INTRODUCTORY SESSION: the first in a series of three PBL seminars focusing on one scenario. The trigger is introduced and learning needs identified by the students in this session.

LEARNING ACTIVITY: exercise designed to promote learning through, for example, discussion, searching / reviewing material or practical experiment.

PBL SESSION: time when the PBL team meet to decide the learning needs associated with the given situation. The work required to fulfill the identified needs is allocated to team members through negotiation. Sessions may be introductory when the situation is first presented; intermediate where learning is reviewed and learning needs reassessed, or feedback sessions where each member of the team presents her contribution towards the team's learning. Sessions may or may not be facilitated.

PBL TEAM: students who meet together, on a regular basis throughout the programme, with the purpose of learning about a series of situations which mirror practice.

PRECEPTOR: member of qualified nursing staff who has responsibility for guiding the student's learning and assessing performance in clinical placements

PORTFOLIO: the student's personal file which contains a record of the learning achieved from each situation.

PROBLEM: the situation may be presented as a problem which has to be worked through.

PROBLEM-BASED LEARNING (PBL): an educational strategy which uses material which is as close as possible to real life as a stimulus for learning. It takes account of *how* people learn. Learners are actively engaged and involved with the material. Learning to develop lifelong enquiry and learning skills is more important than remembering content.

PROBLEM-SOLVING APPROACH: an approach to the delivery of individualised midwifery / nursing care which the student will encounter during clinical experience.

RESOURCE BOX: box available to each team for each situation. Will contain items such as research articles, manufacturers, literature, videos, small items of equipment.

SCENARIO: the detail related to the situation . May or may not form part of the trigger.

SITUATION: reflects a true-to-life practice experience which requires certain knowledge and skills in order to provide nursing / midwifery care for the patient / client. Students identify what relevant knowledge they have already and determine what they need to learn in relation to the given situation.

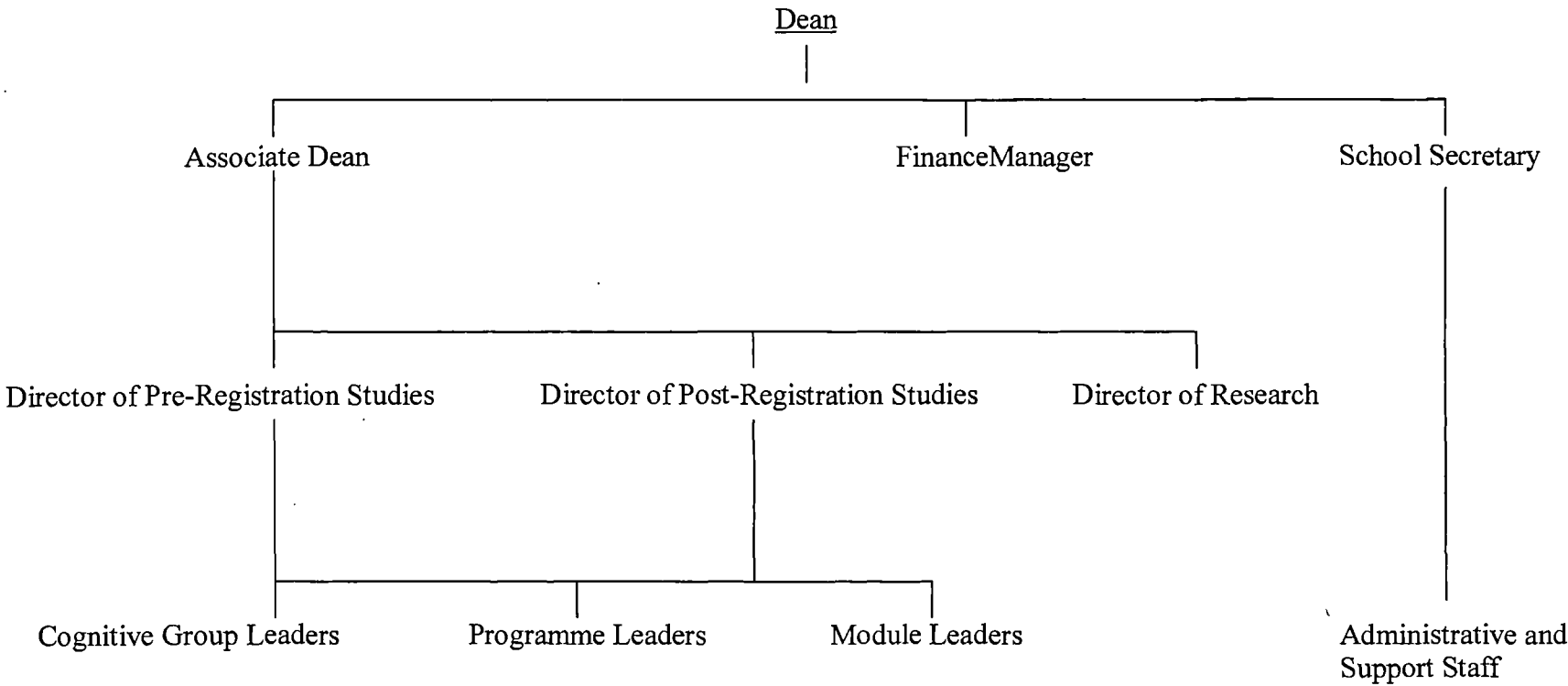
SITUATION IMPROVEMENT PACKAGE: collection of additional material relating to the patient / client in the scenario. The material may be introduced incrementally.

TRIGGER: the initial stimulus used to introduce each situation. These will vary greatly in nature e.g. nursing / midwifery notes, video clips.

Appendix Two

SCHOOL MANAGEMENT STRUCTURE

School Structure



Appendix Three

COHORT FLOW -THROUGH DURING RESEARCH

Student Cohorts During Research Period

1998												1999												2000												2001															
Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb																
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Appendix Four

MODULAR OUTLINE

PRE-REGISTRATION DIPLOMA PROGRAMME

APPENDIX FOUR

Outline of Modules in Programme

YEAR ONE (CFP)

	Term One	Term Two	Term Three
F i f t e e n W e e k s ↓	Module One Nursing 2 weeks PBL	Module Three Nursing 1 week 2 day per week PBL	Module Five / Six Health Promotion 3 weeks Non PBL
	Module Two Nursing 1 weeks PBL	Practice	
	Modules One & Two	15 weeks x 3 days per week	Module Five / Six
	Practice		Practice
	7 weeks		12 weeks

YEAR TWO (CFP / Branch)

	Term One (CFP)	Term Two (CFP / Branch)	Term Three (Branch)
F i f t e e n W e e k s ↓	Module Seven Nursing 1 weeks PBL	Module Nine Community Nursing (CFP) 1 weeks PBL	Module Eleven Nursing 1½ weeks PBL
	Module Eight Community Nursing 4 weeks Non PBL	Module Ten (Branch) Nursing 1 weeks PBL	Module Twelve Management 1½ weeks Non PBL
	Module Seven / Eight	Module Nine / Ten	Module Eleven / Twelve
	Practice	Practice	Practice
	7 weeks	7 weeks	12 weeks

YEAR THREE (Branch)

Term One

F i f t e e n W e e k s ↓	Module Thirteen Nursing 7 weeks PBL
	Module Thirteen Practice 8 weeks

Term Two

Module Fourteen Nursing 7 weeks PBL
Module Fourteen Practice 8 weeks

Term Three

Module Fifteen Management 3 weeks Non PBL
Module Fifteen Practice 12 weeks

Appendix Five

**INFORMATION ABOUT THE RESEARCH
AND
REQUEST FOR CONSENT**

THE LIVED CURRICULUM OF PBL - WHAT'S GOING ON ?

Information for Participants Second Cycle

Thank you for agreeing to participate in the research project. The overall aim of the project is to discover what is actually going on in the PBL curriculum rather than what School evaluation tells us is happening.

The research design is qualitative and collaborative. I will be a participant in the research and will be working with you to try to understand the process of PBL facilitation from staff and student perspectives.

The design is based on Paton's (1990) 'Situational Responsiveness' which allows for use of multiple methods in the attempt to discover what is actually going on.

Issues involved

1. Negotiated Consent

Consent will be obtained from all participants in order to ensure the protection of identities and to treat people with respect.

2. Sampling

Purposive sampling will be used to identify 'key people' in the lived PBL curriculum. This will allow other people to be included in the research as it progresses.

3. Data Collection Methods

A range of methods will be used. These will include:-

- * Audio - taping of PBL sessions
- * Interviews with facilitators and students - these will be a mix of informal conversational interviews and semi-structured interviews and both group and one-to-one. These will be recorded.
- * Reflective Journals

4. Trustworthiness and validity

This will be ensured by the following strategies:-

Triangulation of methods and data sources.

Member checking - transcripts of tapes and findings will be available to participants to ensure that they are valid and meaningful

Research logging - I will be keeping notes on the progress of the research, the logistics and the points at which methodological decisions are made. Additionally I will be keeping a reflective diary to highlight my own views, opinions and perspectives and to identify areas of researcher bias.

THE LIVED CURRICULUM OF PBL - WHAT'S GOING ON ?

The Research Method

1. TAPED PBL SESSIONS

Please record ONE set of PBL sessions from each of the following:-

Modules 10 / 11 i.e. only of the 4 PBL triggers which run over the two modules

Module 13

Module 14

This gives three sets of recordings in total.

A set of PBL sessions consists of the introductory session, the review session and the feedback session. If the students decide either not to have a review session or that they want an unfacilitated review session, simply make a note of this.

The choice of trigger to be recorded is completely up to you and your team. If you have a particular reason for choosing a certain trigger, you may want to record this in your journal.

You may want to ask the students to take control of the recording. Please don't feel that the recording has to be a 'big deal'. Results from the pilot study suggest that if the facilitator has made an issue about the recording, the initial part of the session could be a bit 'sticky' whereas when the recording was regarded as a normal part of the session, the discussion ran as usual.

The consent of the students will be sought in the first session in Module 10. Please reassure them that the tapes will be confidential and there will be no personal 'come back' from anything said.

Tape recorders are held by Pete (in Ascog) and Donald (in Dunagoil). I have alerted them both that there will be a steady stream of requests in the coming months. The recorders are either the traditional type or Dictaphone type - either is fine. Tapes are available for both. Like all good qualitative researchers I carry extra batteries and get away money if there is an emergency !

It would be very helpful for the transcribing if you would indicate at the start of the tape, the date and the trigger to be discussed (this will also let you see if the volume etc is OK)

2. INTERVIEWS

Interviews with staff will be either informal, conversational type group interviews or semi-structured one-to-one interviews. The informal interviews will probably take place during preparatory workshops for the next set of triggers or as part of the Facilitator Development Days.

Additionally I would like to have a semi-structured interview with each of the participant facilitators each term to discuss the PBL experience. These will take place at mutually agreed times.

Group interviews with the students will be held once per term.

The Research Method

3. REFLECTIVE JOURNALS

I would be very grateful if facilitators would agree to keep a reflective journal of the sessions. A notebook is provided for this purpose. I do not want the journal to become a chore as I know how busy everyone is. A few short notes or examples of your thoughts and / or feelings about significant events is sufficient. Please include events which occur in any of the PBL sessions - not only the recorded sessions. You may also find that there are issues which occur out with the sessions, but related to PBL, on which you want to reflect.

All of you will be familiar with the reflective process. Please feel free to use any of the models of reflection with which you are comfortable. If you have no preference, you may find the EIAG method produced by the New England Training Institute useful.

Experience

Record a PBL experience where there is some concern or a particular success which you would like to examine.

Identify

Identify the critical elements of the experience. It might, for example, be something you have strong feelings about, something which puzzles you or about which you had (have) some apprehension. Select, isolate and focus on the data - which could be thoughts, feelings or actions. Try asking yourself questions such as "What exactly happened ?", "What did I see ?", "How did I feel ?", "What was the effect on me / the students ?".

It is valuable to be really specific at this stage and try to recall the situation and to bring it into the forefront of your awareness.

Analyse

At this stage try to understand what went on to make sense of the data and to interpret what happened. Questions at this stage include "What caused the situation ?", "Why did I feel like that / do that ?", "What made other people behave as they did ?".

Generalise

This is where learning for the future takes place. What insights have taken place ? What would you do differently in the future to avoid that situation or what do you want to do to repeat the success ?

University of Kingarth
School of Nursing and Midwifery

Dear Colleague,

The Lived Curriculum of PBL - What's going on ?

As part of my research into the development of PBL I would like to tape-record a series of PBL sessions. I am interested in what constitutes a 'good' PBL session from both the student and facilitator viewpoint. Eventually I intend to have several series of PBL sessions across the whole pre-registration programme on tape and from these I hope to be able to identify what is actually happening in the live experience of PBL as opposed to what we think or are told is going on.

The methodology to be used is outlined in the attached letter.

The tapes will be used for research purposes only and will be held securely by me under a coded reference. No individual will be identified in the research material. Whilst the confidentiality of your contribution is otherwise assured, you should be aware that I as the researcher must, under the terms of professional nursing conduct, act to ensure patient / client safety or to report apparent cases of professional misconduct. It is extremely unlikely that an instance of either of these will be identified during the research, but I reserve the right to use information given by you to support professional nursing conduct.

If you are willing to give consent for participation in the project, please return the completed slip to me.

If you would like further information at any point in the project please contact me on ext 5911 or e-mail kay@snm.kingarth.ac.uk

Regards,

Kay Wilkie
January 1999

I agree to take part in the PBL study. I understand that any contribution I may make will be treated as confidential; that there is no detriment attached to participation in the study and that I may withdraw from the study without penalty at any time.

NAME

SIGNATURE

PBL Team

SCHOOL OF NURSING AND MIDWIFERY

RESEARCH PROJECT - WHAT'S GOING ON THE IN PBL CURRICULUM ?

Dear September 1997 Adult Branch Students,

Sorry - it's another request for your participation in a research study.

As you all know, the School of Nursing and Midwifery is the first Scottish School of Nursing to use Problem-based Learning in its pre-registration curriculum. Because we want to know what is *really* happening with PBL, not what the enthusiasts, complainers or quality department tell us is happening, I am asking for your help in this research study.

Involvement in the study would mean having ONE of your PBL sessions taped-recorded in each Nursing Module of the Adult Branch and having a short discussion about your overall live experience of PBL once each module - i.e. 3 times in 18 months. You can decide which trigger you want to record and have control of the tape recorder. Transcripts from the tapes (PBL and discussion) will be available for you to check. Findings will also be fed back as they become available.

Confidentiality is guaranteed for both the recordings and the discussions. Material from the discussion and the recording will *only be used for the research project*. None of the material will be used for School purposes such as assessment. There are no detrimental effects attached to taking part. This is an opportunity to say and demonstrate what it is really like to take part in a PBL course.

Findings from the project will be used to improve the PBL experience in the future - you may benefit from some of these. The study gives you the opportunity to 'tell it like it is'.

If you would like further information about the project at any time, please do not hesitate to contact me.

Your Branch facilitator has the consent forms. I do hope you will agree to take part.

Kay Wilkie

University of Kingarth
School of Nursing and Midwifery

Dear Student

WHAT'S GOING ON IN THE PBL CURRICULUM ?

As explained the research outline letter I am currently undertaking research into what actually happens in Problem-based Learning courses.

Your PBL facilitator has indicated that he / she is willing to participate in the study. I am therefore writing to formally request your consent to participating in the study.

The taping will be done entirely within the PBL team i.e. there will be no 'outsiders' present. The tapes will be held by me, under code, and will not be made available to any other person for whatever purpose. Individual students will not be identified. The tapes will be used for research purposes only i.e. they will not be passed on to anyone nor used for any type of assessment. You have the right to withdraw from the project without penalty at any time

Whilst the confidentiality of your contribution is otherwise assured, you should be aware that I as the researcher must, under the terms of professional nursing conduct, act to ensure patient / client safety or to report apparent cases of professional misconduct. It is extremely unlikely that an instance of either of these will be identified during the research, but I reserve the right to use information given by you to support professional nursing conduct.

If you are willing to be involved in the study, please complete the slip and return it to your facilitator.

If you have any questions at any point in the study I can be contacted at the Ascog Campus ext 5911 or e-mail m.c.k.wilkie@kingarth.ac.uk.

Regards,

Kay Wilkie
January 1999

I agree to take part in the PBL study. I understand that any contribution I may make will be treated as confidential; that there is no detriment attached to participation in the study and that I may withdraw from the study without penalty at any time.

NAME

SIGNATURE

PBL Team

THE LIVED CURRICULUM OF PBL - WHAT'S GOING ON ?

Information for Participants - 3rd Cycle

Thank you for agreeing to participate in the research project. The overall aim of the project is to discover what is actually going on in the PBL curriculum rather than what School evaluation tells us is happening.

The research design is qualitative and collaborative. I will be a participant in the research and will be working with you to try to understand the process of PBL facilitation from staff and student perspectives.

The design is based on Patton's (1990) 'Situational Responsiveness' which allows for use of multiple methods in the attempt to discover what is actually going on.

Issues involved

1. Negotiated Consent

Consent will be obtained from all participants in order to ensure the protection of identities and to treat people with respect.

2. Sampling

Purposive sampling will be used to identify 'key people' in the lived PBL curriculum. This will allow other people to be included in the research as it progresses.

3. Data Collection Methods

A range of methods will be used. These will include:-

- * Audio - taping of PBL sessions

- * Interviews with facilitators and students - these will be a mix of informal conversational interviews and semi-structured interviews and both group and 1:1. These will be recorded.

- * Reflective Journals

4. Trustworthiness and validity

This will be ensured by the following strategies:-

Triangulation of methods and data sources.

Member checking - transcripts of tapes and findings will be available to participants to ensure that they are valid and meaningful

Research logging - I will be keeping notes on the progress of the research, the logistics and the points at which methodological decisions are made. Additionally I will be keeping a reflective diary to highlight my own views, opinions and perspectives and to identify areas of researcher bias.

THE LIVED CURRICULUM OF PBL - WHAT'S GOING ON ?

The Research Method

1. TAPED PBL SESSIONS

Please record ONE set of PBL sessions from each of the following modules in year 1:-

Modules 1 & 2 i.e. only ONE of the 4 PBL triggers which run over the two modules

Modules 3 & 4 i.e. only ONE of the 4 PBL triggers which run over the two modules

This gives two sets of recordings in total.

A set of PBL sessions consists of the introductory session, the review session and the feedback session. If the students decide either not to have a review session or that they want an unfacilitated review session, simply make a note of this.

The choice of trigger to be recorded is completely up to you and your team. If you have a particular reason for choosing a certain trigger, you may want to record this in your journal.

You may want to ask the students to take control of the recording. Please don't feel that the recording has to be a 'big deal'. Results from the first cycle suggest that if the facilitator has made an issue about the recording, the initial part of the session could be a bit 'sticky' whereas when the recording was regarded as a normal part of the session, the discussion ran as usual.

Please seek the consent of the students in the first session in Module 1. Please reassure them that the tapes will be confidential and that there will be no personal 'come back' from anything said. I will 'flag up' the project to the students in the 'Introduction to PBL' session in week one.

Tape recorders are held by Catriona and Donald. They are both aware that there is a steady stream of requests ! The recorders are either the traditional type or Dictaphone type - either is fine. Tapes are also available for both types of recorder. (Cost of tapes comes from funding allocated to me by Staff Development if anyone asks). Like all good qualitative researchers I carry extra batteries and get away money if there is an emergency !

It would be very helpful for the transcribing if you could label the tapes with the trigger and the PBL team letter.

2. INTERVIEWS

Interviews with staff will be either informal, conversational type group interviews or semi-structured one-to-one interviews. The informal interviews will probably take place during as part of the Facilitator Development Days.

I would like to have one semi-structured interview with each of the participant facilitators to discuss the PBL experience. These will take place at mutually agreed times.

Group interviews with the students will be held once during this cycle of the research.

SCHOOL OF NURSING AND MIDWIFERY
THE LIVED CURRICULUM OF PBL - WHAT'S GOING ON ?

Participants Pack - 3rd Cycle

Outline of Research
Methodology information sheet
Facilitator consent form
Student consent forms
Copy of student information letter

The box file can be use to store any other information you think might contribute to the research e.g. material submitted by students.

Please return the students' consent forms to me asap, anything else can wait.

For further information, help etc at any time during the project please contact me (ext 5911, kay@snm.kingarth.ac.uk)

Thank you all very much for agreeing to be researched.

October 1999

SCHOOL OF NURSING AND MIDWIFERY

RESEARCH PROJECT - WHAT'S GOING ON THE IN PBL CURRICULUM ?

Dear October 1999 Students,

As you all know, the School of Nursing and Midwifery is the first Scottish School of Nursing to use Problem-based Learning in its pre-registration curriculum. Because we want to know what is *really* happening with PBL, not what the enthusiasts, complainers or quality department tell us is happening, I am asking for your help in this research study.

Involvement in the study would mean having ONE of your PBL sessions taped-recorded in each of the first two terms in the first year and some of you having a short group discussion with me about your overall lived experience of PBL once in that time. You can decide which trigger you want to record and have control of the tape recorder. Transcripts from the tapes (PBL and discussion) will be available for you to check. Findings will also be fed back as they become available.

Confidentiality is guaranteed for both the recordings and the discussions. Material from the discussion and the recording will *only be used for the research project*. None of the material will be used for School purposes such as assessment. There are no detrimental effects attached to taking part. This is an opportunity to say and demonstrate what it is really like to take part in a PBL course.

Findings from the project will be used to improve the PBL experience in the future - you may benefit from some of these. The study gives you the opportunity to 'tell it like it is'.

If you would like further information about the project at any time, please do not hesitate to contact me either by phone - Ascog Campus ext 5911 or by e-mail m.c.k.wilkie@kingarth.ac.uk

Your facilitator has the consent forms. I do hope you will agree to take part.

Kay Wilkie

University of Kingarth
School of Nursing and Midwifery

Dear Colleague,

What's going on in The Lived Curriculum of PBL

3rd Cycle

As part of the next (and final) phase of my research into facilitation skills in PBL I would like obtain tape-recordings of PBL sessions in Year 1 of the course and the views of students and teachers on what actually happens in PBL tutorials. I am interested in what constitutes a 'good' PBL session from both the student and facilitator viewpoint. Findings from the study will be fed back to facilitators.. The methodology used is outlined in the attached letter.

The tapes will be used for research purposes only and will be held securely by me under a coded reference. No individual will be identified in the research material. Whilst the confidentiality of your contribution is otherwise assured, you should be aware that I as the researcher must, under the terms of professional nursing conduct, act to ensure patient / client safety or to report apparent cases of professional misconduct. It is extremely unlikely that an instance of either of these will be identified during the research, but I reserve the right to use information given by you to support professional nursing conduct.

If you are willing to give consent for participation in the project, please return the completed slip to me.

If you would like further information at any point in the project please contact me on ext 5911 or e-mail kay@snm.kingarth.ac.uk

Thank you

Kay Wilkie
October 1999

I agree to take part in the PBL study. I understand that any contribution I may make will be treated as confidential; that there is no detriment attached to participation in the study and that I may withdraw from the study without penalty at any time.

NAME

SIGNATURE

PBL Team (October 1999)

University of Kingarth
School of Nursing and Midwifery

Dear Student

WHAT'S GOING ON IN THE PBL CURRICULUM ?

I am currently undertaking research into what actually happens in Problem-based Learning courses. The attached letter gives further details about the design of the research.

Your PBL facilitator has indicated that he / she is willing to participate in the study. I am therefore writing to formally request your consent to participating in the study.

The taping will be done entirely within the PBL team i.e. there will be no 'outsiders' present. The tapes will be held by me, under code, and will not be made available to any other person for whatever purpose. Individual students will not be identified. The tapes will be used for research purposes only i.e. they will not be passed on to anyone nor used for any type of assessment. You have the right to withdraw from the project without penalty at any time.

Whilst the confidentiality of your contribution is otherwise assured, you should be aware that I as the researcher must, under the terms of professional nursing conduct, act to ensure patient / client safety or to report apparent cases of professional misconduct. It is extremely unlikely that an instance of either of these will be identified during the research, but I reserve the right to use information given by you to support professional nursing conduct.

If you are willing to be involved in the study, please complete the slip and return it to your facilitator.

If you have any questions at any point in the study I can be contacted at the Ascog Campus ext 5911 or e-mail m.c.k.wilkie@kingarth.ac.uk.

Thank you,

Kay Wilkie
October 1999

I agree to take part in the PBL study. I understand that any contribution I may make will be treated as confidential; that there is no detriment attached to participation in the study and that I may withdraw from the study without penalty at any time.

NAME

SIGNATURE

PBL Team (October 1999)

Appendix Six

RESEARCH TRIALS

ADVICE FOR NURSES AND NURSING STUDENTS

RCN March 1992

RESEARCH TRIALS

ADVICE FOR NURSES AND NURSING STUDENTS

INTRODUCTION

In recent years there has been a marked increase in the number of people participating in medical trials as healthy volunteers. For students and people on low incomes living and working near hospitals and medical schools, participation in drug trials can appear an attractive means of topping up income. This advice has been prepared to help nurses and nursing students make an informed decision about participating in research trials. Nurses should be wary of taking part in studies which do not meet the following standards of good practice.

CONSENT

You should be aware that you can withdraw from the study at any stage without giving a reason, even if payment has been offered.

Prior to participation, you should be asked to sign a consent form. Do not sign a consent form unless you have had adequate explanation and information. The consent form should be signed and dated and you should be able to take it away.

You should be able to ask as many questions as you like and take time to make your decision.

It is useful to be aware that researchers may be under pressure to recruit a sufficient pool of volunteers. This should not influence your decision. Individual approaches are not appropriate. You should not be offered financial inducements which encourage you to risk your health. You should not be encouraged to believe that agreeing to take part in a research study will gain you favourable attention in the service.

INFORMATION

You should be told of all possible risks. You should be given clear information, in writing, about possible side effects or warning signs which could indicate a health problem. You should also be given the name and telephone number of a suitably qualified practitioner whom you can contact for advice. You should also be told of any possible discomfort or restrictions on driving or working.

You should be told about the length of the study and what is expected of you.

RECOMPENSE AND REDRESS

Medical insurance with an adequate compensatory mechanism should be included as part of the experiment.

There should be no financial advertisements and an amount of money should not appear in the initial notice.

If you are covered by private insurance, you may need to check your policy to see whether you are covered for accidents during medical experiments.

Remember that money is not supposed to compensate you for risk, but expenses.

CONDUCT OF RESEARCH

The trial should be carried out safely, with negligible risk to the participant.

It should have been approved by a properly constituted ethical committee.

You should be asked how long it is since you last took part in a trial and be wary if they do not insist on a rest period.

Procedures should be carried out by adequately trained staff, using the right equipment.

The investigator should ask to let your GP know that you have volunteered in a pharmacological study.

You should be asked about smoking, alcohol and drug consumption and whether you are taking any medicines.

Women should take special care in studies which could be harmful to pregnancies. Women of childbearing age should probably not normally be included in initial pharmacological trials.

This advice draws extensively on work undertaken by the Royal College of Physicians.

REFERENCES

Research on Healthy Volunteers, A Report of the Royal College of Physicians, 1986.
Reprinted March 1992 Order No. 000 098



Appendix Seven

INTERVIEW GUIDELINES

PBL TEAM INTERVIEW SCHEDULE (1st Cycle)

Introduction

Thank you for agreeing to be interviewed. The interview is intended to be an open one. Although I have some questions which I would like to ask you, I am also interested in any additional comments or views you may have on your experience of PBL.

How do you feel about the most recent PBL sessions ?

What went well with them ?

Why do you think these elements went well ?

What factors made them 'good' ?

Were there any difficulties or problems ?

What were they ?

Why do you think they arose ?

Could they have been avoided ?

How ?

What do you think your role as students is ?

- introductory sessions

- feedback sessions

Is the role different from the PBL in the Foundation Part ?

What do you expect your facilitator to do in the PBL seminar ?

Is there anything that your facilitator does which is particularly helpful / unhelpful ?
(prompt if necessary)

Free comment

Thanks for taking part

FACILITATOR INTERVIEW SCHEDULE (2nd cycle)

Introduction

Thank you for agreeing to be interviewed. The interview is intended to be an open one. Although I have some questions which I would like to ask you, I am also interested in your comments or views on your experience of being a PBL facilitator.

What do you think your function as a facilitator is ?

- introductory sessions
- feedback sessions

Does the role differ with, for example, different teams of students ?

In what way ?

- stage of team in the course
- team make up
- other

What skills / strategies / techniques do you use to fulfill the facilitator role ?
(break down and link to what was said in answer to the previous question)

Are there any of these which you feel which are particularly effective ?
(link to situations such as disjunction, feedback, clarification etc)

Any strategies you know about but don't use / seldom use because they don't seem to be effective ?

What do you expect from the students in the PBL seminars ?

How do you feel about the PBL sessions in this module ?

What went well with them ?

Why do you think these elements went well ?

What factors made them 'good' ?

Were there any difficulties or problems ?

What were they ?

Why do you think they arose ?

Could they have been avoided ?

How ?

Free comment

Thanks for taking part

Facilitator Interview Schedule (Third Cycle)

- ❑ How would you define your view of student learning ?
- ❑ Try to explore feelings of self-doubt and anxiety
- ❑ How did they deal with the effects of their interventions
- ❑ Physical closeness to students - room layouts, Which students do they sit beside?
- ❑ 'Comfort' how do facilitators promote comfort within teams ? Is this easier with some teams than with others ?
- ❑ How does the degree of comfort affect the PBL process - enabling or inhibiting ?
- ❑ Truth telling - how do you deal with something you don't believe ?
- ❑ How would you describe your team ?
- ❑ Do any of the triggers make you feel anxious ?
- ❑ Does the same trigger always produce the same response from different teams ?
- ❑ How do your other roles in the organisation affect your role as a facilitator ?

Appendix Eight

KEEPING MUMMY SAFE

Title: Keeping Mummy Safe

Situation.

An elderly lady who is bed/chair fast, who is being admitted for respite care while her daughter takes a two week holiday.

Her daughter Miss. Nora McDade lives with her and is her only carer. She has accompanied her into hospital, and as a quick guide for the nurses Nora has written out her mothers normal daily routine.

Questions.

What key issues are there for this lady's care in your ward?

Learning Activity.

Plan the care for Mrs. Nancy McDade to maintain a safe environment while she is in hospital

PBL sessions.

- | | |
|--------------|---|
| 1st session | explore the trigger, consider the situation, identify learning needs and sharing out the work. |
| 2nd. session | review progress, and introduce Nancy's admission assessment. |
| 3rd. session | feedback of key issues, presentation of, plan of care including rationale, for Mrs. Nancy McDade. |

22 March 1996

Kirkcaldy

21st Octob.

Dear Nursing Staff,

This is a guide to Mrs Nancy McDavid's daily routine.

She usually wakes about half past six and needs to the commode. Once she is finished I help her back into bed and give her a cup of tea. I make breakfast about 8ish, and she has this in bed - tea (milk and 2 sugars), toast with FLORA and marmalade (fins cut as the chunks get under her dentures).

Maths stays in bed with the newspapers and Radio Scotland until 10:30 am when I get her washed and dressed and then we have our elevenses. She is a bit unsteady on her feet and needs help to get into her special chair. She then watches TV (channel 3) until the lunch time news.

I take her through to the toilet before lunch and her bowels normally move then.

For lunch we usually have soup and a sandwich and a cup of tea. Maths then has a rest until about 3pm when we have a cup of tea and a chocolate biscuit. We have our main meal about 6pm. She doesn't eat red meat or eggs and doesn't like salads.

She then watches T.V. until she goes to bed. Maths has her bath on Tuesdays and Saturdays after supper and I wash and set her hair at the same time.

She gets very concerned if she doesn't "go" for more than two days and then she gets a spoonful of Syrup of figs.

I will be at my sister's in Glasgow - 0141-562-4306.

Yours faithfully

N McDavid

NORA McDAVID

Patient Profile

Ward

Date of admission
Hospital number

Name *Mrs Nancy McDade*
 Address *22 Larch Grove*
Kirkcaldy,
Fife

Phone *01592 667386*Date of birth *27.7.05*

General Practitioner *Dr.*
 Address *Kirkcaldy H. C.*
Whyteman's Brae
Kirkcaldy

Phone *01592 266271*Religion *Church of Scotland*Marital status *widowed for 15 years*Occupation *Housewife*

Relevant Medical History
 # *(R) NoF 5 yrs ago*
CCF (mild)

Reason for admission *for 2 week respite admission*
to allow her daughter Nora a holiday

Allergies *none known*

Source of information
Miss. Nora McDade

Next of kin *Miss Nora McDade*

Address *22 Larch Grove*
Kirkcaldy

Note she is on holiday at the
address below

Phone

Relationship *Daughter (main carer, 1st contact)*Name *Karen Jones*

Address *1436 Anniesland Prospect*
Bearsden.

Phone *0141 562 4306*Relationship *daughter*

Visiting problems *will visit at the*
weekend

To be called at night *(Yes/No)*

Property & Valuables *None lodged with*
hospital, has £10 in her purse

Dentures, ~~plate/upper only/lower only/full~~Hearing aid, Yes/No, ~~right/left~~Spectacles Yes/~~No~~, Reading/~~Distance~~

Financial arrangements *Daughter Nora*
has house keys, and pension book

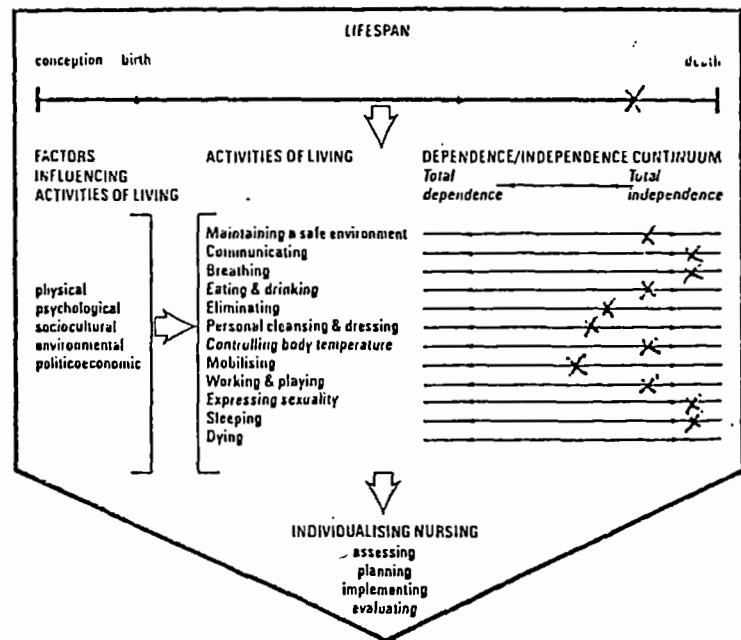
Social Services *none*

Admitted by
St n Valerie Dun

Patient Profile

Ward

Name *Nancy McDade*
 Address *22 Larch Grove*
Kirkcaldy
 Date of birth *27.7.05*
 Hospital number
 Date of admission



Assessment.

Maintaining a safe environment.

Alert lady, able to control her environment immediately around her. Feels safe in her special chair or when in bed. Able to summon help.

Communicating.

Wears reading glasses, enjoys reading her daily Scotsman. Doesn't have a hearing aid, but sometimes needs things repeated if the speaker is softly spoken. Speech clear despite teeth.

Breathing.

Respiration's 16, rate depth & rhythm normal, non smoker, no cough.

Eating and drinking

Full set dentures, don't seem to fit well - tend to drop when she speaks. Halitosis noted, soaks dentures in Sterident at night. Able to feed herself, likes an early morning 'cuppa' (milk + 2 sugars) Usually has breakfast in bed, but is happy to get up for breakfast if someone helps her dress. Doesn't eat red meat or eggs & doesn't like salads. Really enjoys lentil soup and potted hough sandwich. Weight 9 stone 4 lbs says she's put on a bit of weight in the last five years. Height 5 foot 3 inches.

Eliminating

No problems, bowel usually works before lunch, takes syrup of figs if she hasn't gone for a couple of days. Its a struggle for her daughter to get her to the toilet, but she can't walk or stand for long. Ward urinalysis - no abnormalities on multistix testing.

Personal cleansing and dressing.

Washes herself in a basin in the mornings and puts her own clothes on. However she says she needs help with the bottom half - pulling up stockings and pants. Daughter gets her into the bath a couple of times a week in the evening. They have a bath board and seat, no lifting aids. She has her hair washed about once a fortnight

Controlling body temperature.

Temperature 36°, pulse 72, able to adjust her own clothing

Mobilising.

Hasn't been able to walk at all for some years. Has an arthritic 'raiser' chair at home. Has her own wheelchair in hospital with her. Can only stand for a minute or two. Its hard on her daughter who has to lift her

Working and playing.

She sometimes helps clean the silver and brasses and other little jobs like that, that she can do in her chair. Likes watching TV, channel 3, specially the morning programmes, has her favourite 'soaps'.

Expressing sexually.

A clean, neat & tidy lady. Likes to wear skirts and tops and shoes with a court style heel.

Sleeping.

Says she get tired easily, likes to have a rest after lunch. She goes to bed somewhere around 8pm. She doesn't need up in the night for the toilet, but often wakes once or twice in the night. If she has trouble getting off again she just watches TV. Doesn't take sleeping pills.

Dying.

Not discussed. Mrs. McDade is not unwell, having come into the ward for respite care so that her daughter can have a break. She may be a little anxious about her admission as she repeatedly stated, 'I'm only here for 2 weeks.'

Appendix Nine

PURE AND INNOCENT BLOOD

**SCHOOL OF NURSING AND MIDWIFERY
ADULT BRANCH**

**PBL 1
YEAR 2
TERM 3
MODULE 11**

PURE AND INNOCENT BLOOD

TRIGGER

Laboratory reports showing blood results for Mrs Ashton and another patient.

SITUATION

You are a senior student nurse working in a medical ward when Mrs Blanche Ashton, a 49 year old lady is transferred from an orthopaedic ward where she had been admitted for a right total hip placement. Routine screening prior to surgery revealed severe anaemia. She has been transferred for further investigation and treatment. The charge nurse has asked you to prepare a short tutorial on 'Anaemia', based on the care required by Mrs Ashton, for the 3 junior students on the ward.

LEARNING ACTIVITY

Prepare a tutorial on anaemia including references for further study. Indicate the expected learning outcomes and state how the tutorial should be run.

Your facilitator has Mrs Ashton's notes. S/he will give you information about Mrs Ashton, but you will have to say why you need the information.

Session 1

Content Exploring prior knowledge and experiences relating to the Trigger through discussion and reflection. Deciding individual participation to achieve the team's established outcomes for the next session.

Session2

Content A feedback session to demonstrate that the team's activities have identified the key issues for a tutorial to student nurses. Discussion on the complexities of this common blood disorder. Reflection on the importance of nurses having the appropriate knowledge and skills to care for anaemic patients.

HAEMATOLOGY

DMR292

DEPARTMENT OF HAEMATOLOGY

NAME: BLANCHE MAISIE ASHTON SEX : F CHI Number: 0303503682

DOB: 3 Mar 1950

Lab No: H99202022

NW Kirk Ward

Clinician : Dr L Ramage

NWH GILN1H

Hb	7.0	g/dl	WBC	1.7	$\times 10^9/l$	PLT	22	$\times 10^9/l$
RBC	2.90	$\times 10^{12}/l$	NE#	0.3	$\times 10^9/l$			
PCV	0.250	l/l	LY#	0.8	$\times 10^9/l$			
MCV	78.0	fl	MO#	0.5	$\times 10^9/l$			
MCH	24.1	pg	EO#	0.1	$\times 10^9/l$			
MCHC	28.0	g/dl	BA#	0.0	$\times 10^9/l$			

Film Report: Pancytopenia. Suggest have marrow examination.

Possible active inflammatory disease.

Microcytic, hypochromic anaemia. Suggest check iron status.

Received 23 Apr 1999 09:49 Date of FBC Request 23 Apr 1999

Report Issued 23 Apr 1999

REPORT RECEIVED

BJM

DOCTOR'S INITIALS

DMR292

HAEMATOLOGY

DEPARTMENT OF HAEMATOLOGY

NAME: JOAN ELSIE IRONS SEX : F CHI Number: 090942618

DOB: 9 Sept 1942

Lab No: H97103011

NW Kirk Ward

Clinician : Dr L Ramage

NWH GILN1H

Hb	12.0	g/dl	WBC	8.6	$\times 10^9/l$	PLT	350	$\times 10^9/l$
RBC	4.90	$\times 10^{12}/l$	NE#	5.0	$\times 10^9/l$			
PCV	0.390	l/l	LY#	2.8	$\times 10^9/l$			
MCV	88.0	fl	MO#	0.6	$\times 10^9/l$			
MCH	28.0	pg	EO#	0.22	$\times 10^9/l$			
MCHC	34	g/dl	BA#	300	$\times 10^9/l$			

Film Report: Within normal ranges

Received 22 Apr 1999 09:49 Date of FBC Request 21 Apr 1999

Report Issued 22 Apr 1999

REPORT RECEIVED

BJM

DOCTOR'S INITIALS

Appendix Ten

THE BALLAD OF WEE ANGUS

PBL
SESSION 3
WOUND CARE (CHILD)

STUDENTS' PACK

DAY 1

Scenario : You are a student nurse in Accident and Emergency department when wee Angus arrives with his mum.

Trigger : Cartoon story board

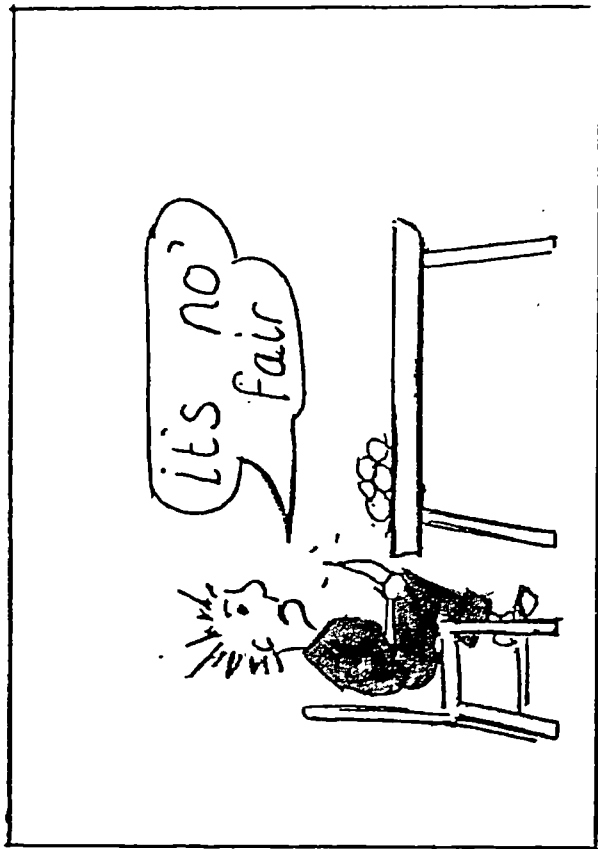
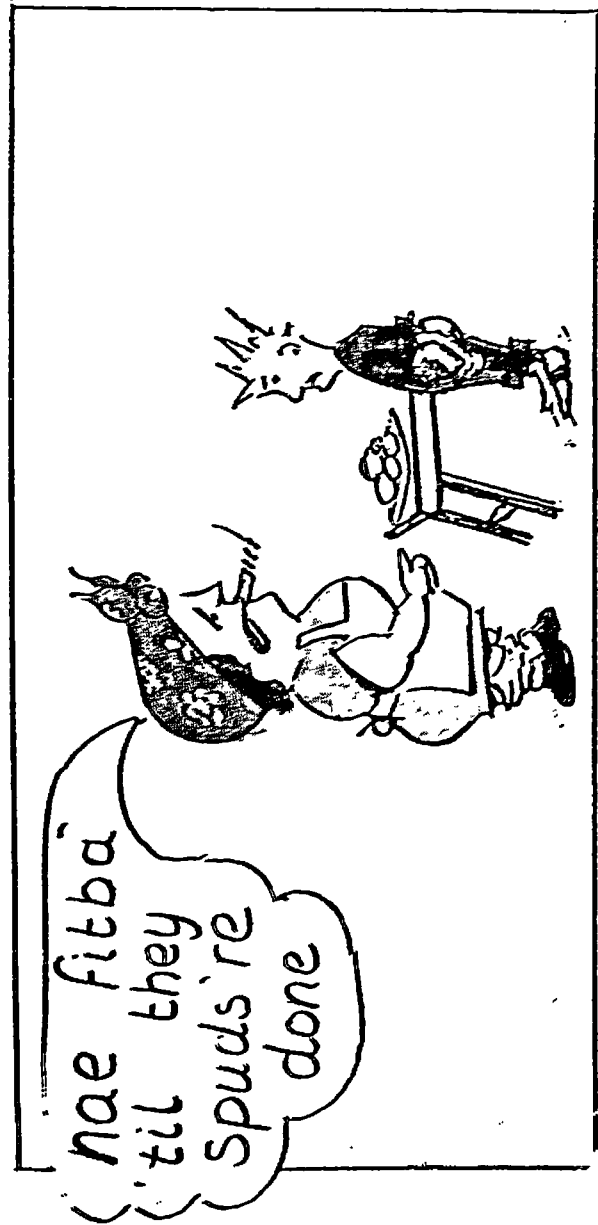
Utilise this session to analyse and discuss the story board.
Reflect on your sources of experience and information to identify learning needs related to the management of wound care.

Identify and agree on the methods for feedback to the team

DAY 2 FEEDBACK

Feedback session with presentation of findings from team members.

Review and assess what you have learned



Appendix Eleven

KEVIN JONES' BIG DAY

Toff Acute Hospitals NHS Trust

MEDICAL UNIT PATIENT PERSONAL PROFILE

Name: Kevin Jones Address: 8 Golf Road DD69DZ TAYPORT Date of Birth: 25.12. 1956 Age: 42 YRS Consultant: Dr Wilson. Hospital No: T 66228 Occupation: SALES MANAGER Religion: NONE		Date of Admission: 31/1/99 Time of Admission: 1720 HRS. REASON FOR ADMISSION: CHEST PAIN. CONFIRMED DIAGNOSIS: INFERIOR MYOCARDIAL INFARCTION I.V. STREPTOKINASE							
NEXT OF KIN Name: MARY JONES. Address: S/A Relationship: WIFE Telephone No: 880110		PATIENT AND RELATIVE AWARE OF: Name of Consultant: DR. B. WILSON Named Nurse: S/N KNOWLESS Charge Nurse: C/N BELL Visiting Hours: YES Location of: Toilet YES Call Bell YES							
CONTACT PERSON 2 Name: ANNE JONES Address: S/A Relationship: DAUGHTER. Telephone No: 880110		WATERLOW SCALE ON ADMISSION RELATIVE SPOKEN TO:							
CONTACT PERSON AT NIGHT Name: MARY JONES Telephone No: 880110		<table border="1"> <thead> <tr> <th>Name</th> <th>Date</th> <th>By Whom</th> </tr> </thead> <tbody> <tr> <td>MARY JONES (WIFE)</td> <td>31.1.99.</td> <td>DR KHAN. (SEN. REG.)</td> </tr> </tbody> </table>		Name	Date	By Whom	MARY JONES (WIFE)	31.1.99.	DR KHAN. (SEN. REG.)
Name	Date	By Whom							
MARY JONES (WIFE)	31.1.99.	DR KHAN. (SEN. REG.)							
VALUABLES: NONE.									
ALLERGIES: NONE KNOWN.									

Surname Hospital No. T66228

Forenames Kevin Jones

Address 8 Golf Road DD69DZ

TAYPORT DOB 25.12.1956

Ward/Dept. UNIT TRIAGE.

NURSING NOTES

T. O. A. 17.20 HRS.

DATE

31/1/01 Emergency admission to TRIAGE bed, ITU/CCU complaining of chest pain, radiating down both arms, started at 16.00 hours, associated with nausea, dizziness and shortage of breath. Patient arrived via 999 call and ambulance.

On arrival to unit, patient still complaining of pain down both arms. Attached to cardiac monitor, showing sinus rhythm with S.T. elevation (rate 72 bpm). Patient's colour is pale, skin cool, clammy. E.C.G. taken, showing inferior MI. Bloods taken for $U_e + E_s$, L.F.T.s, CKs, RBL, R&G, FBC and PV. Blood Pressure checked 132/84.

Commenced oxygen therapy @ 3 litres per min. via MC mask.

No contra-indications noted to thrombolysis therapy. Commenced Streptokinase 1.5 million units in 100mls sod. chloride 0.9% IV over 60 minutes intravenously. + Metoprolol 10mg I.V. at 1728 hours.

1730hrs Given Diamorphine 5mg IV $\frac{1}{2}$ Metoclopramide 10mg IV for pain relief plus 2 puffs G.T.N spray as Dr. Khan's instructions.

1745hrs Given further Diamorphine 2.5mg IV as pain had not eased.

1756hrs Episode of standstill noted on scope / nodal bradycardia (rate 28 bpm) B.P. 88/54. Given 500mg Atropine with good effect. Rate \uparrow to 52-55 bpm B.P. \uparrow 114/72.

18.35hrs I.V. Streptokinase completed. Repeat E.C.G. taken showing very good resolution.

For peak CKs at 04.00 hrs please.

2000hrs Given 50mg Metoclopramide orally, please withheld 10pm prescribed dose.

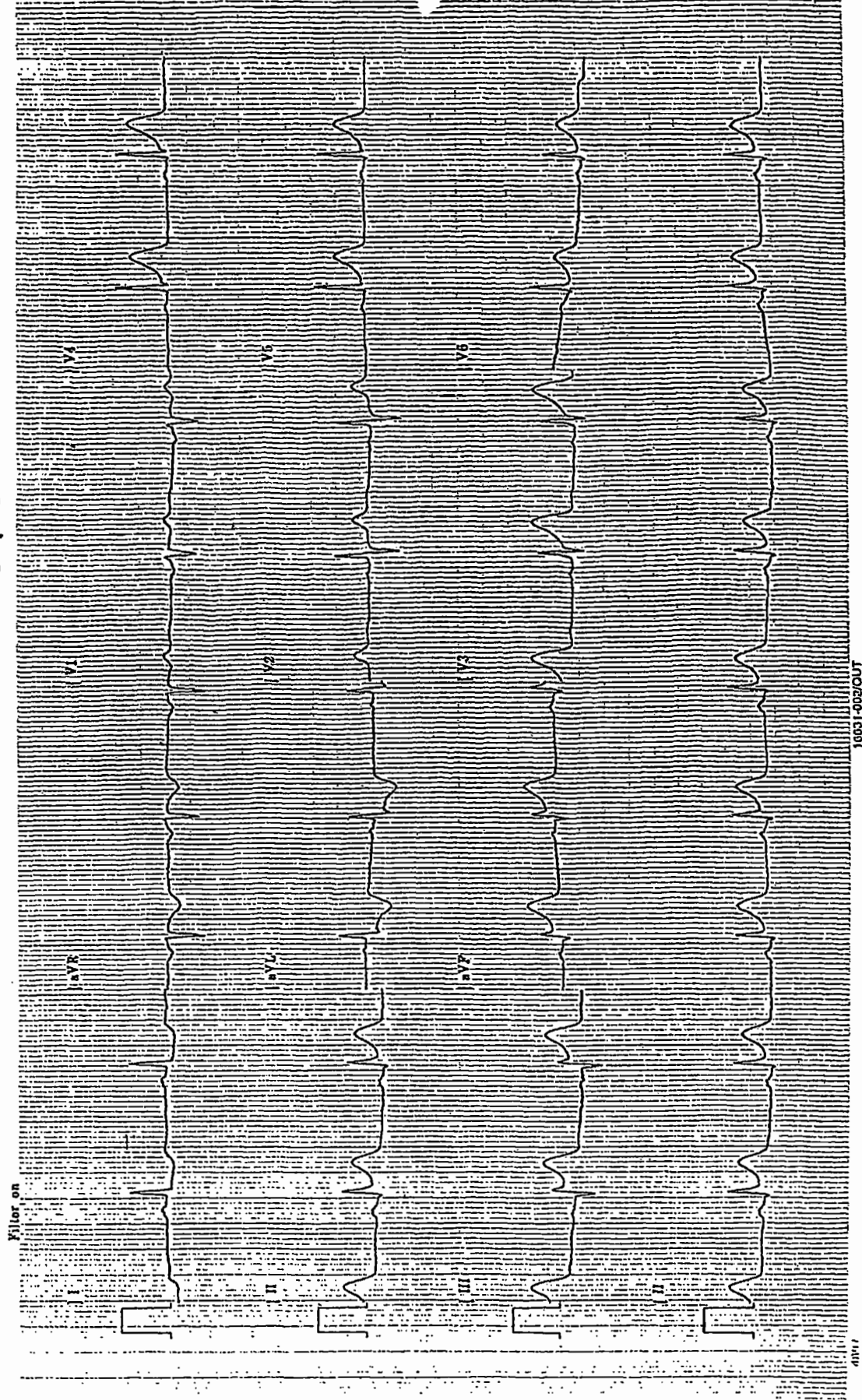
Patient settled since thrombolysis therapy, No further complaints of chest pain. S/N Knowless

KEVIN JONES
3/1/99

ON ADMISSION

17²⁰

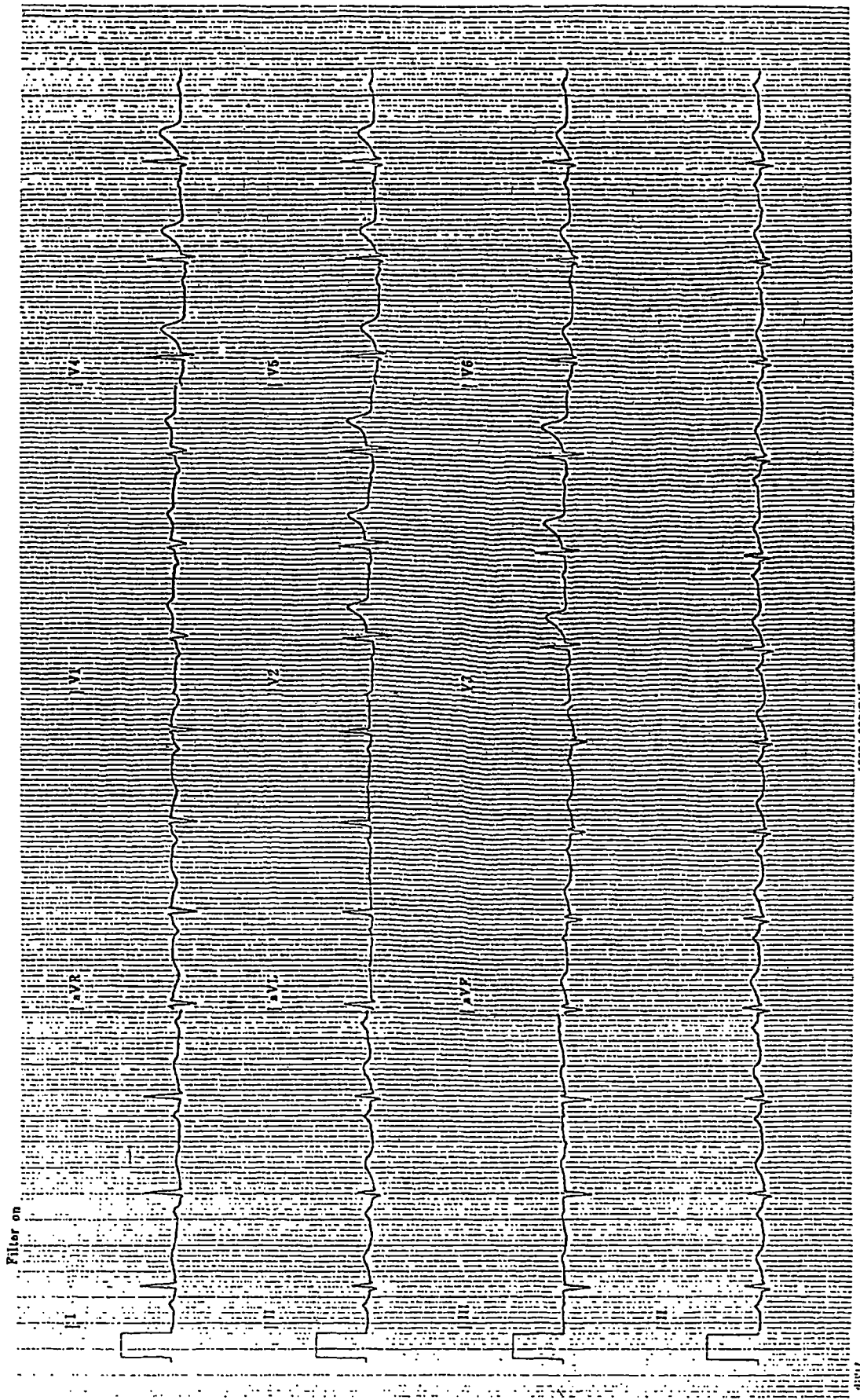
CHEST PAIN PRESENT.



2

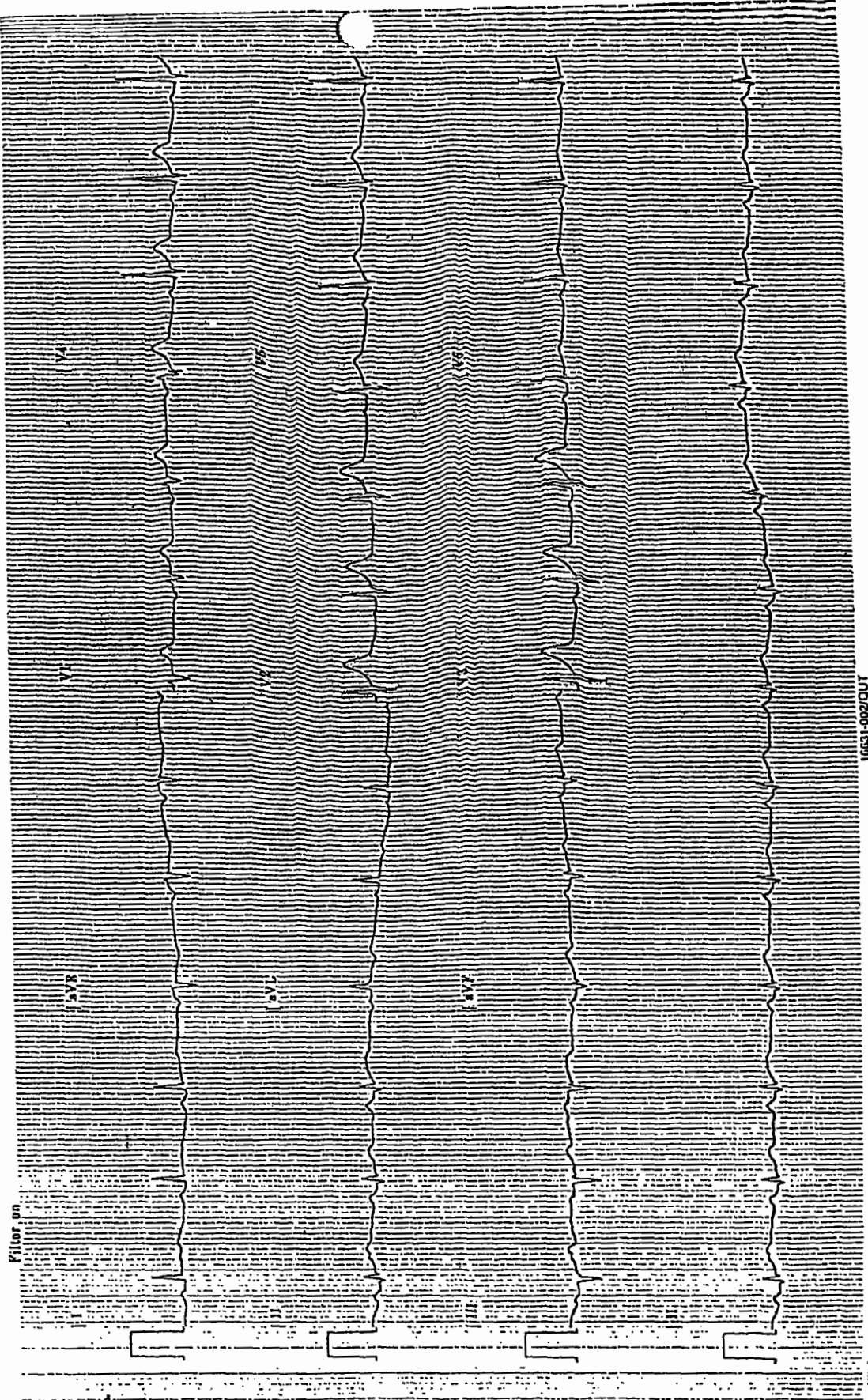
NAME: KEVIN JONES
L.D. 18
DATE 18
MEDICATION TIME 18:35
TI GENICIAN
PHYSICIAN

POST STREPTOKINASE



1603-002/OUT

NAME: KEVIN JONES
 I.D. NO.: 112/99
 DATE: 1/12/99
 TIME: 10AM
 INDICATION: PAIN FREE
 TECHNICIAN: RIVERA
 PHYSICIAN: RIVERA



10031-002 QUT